

# Understanding Mathematics

## Student's Activity Book for Class PP

Name: .....

Section: .....

School: .....



Department of School Education  
Ministry of Education and Skills Development  
Royal Government of Bhutan  
Thimphu

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Ministry of Education and Skills Development (MoESD)

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Website: [www.education.gov.bt](http://www.education.gov.bt)

ISBN: 978-99936-0-369-6

First Edition 2010

Second Edition 2011

Reprint 2024

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## INTRODUCTION

This **Student's Activity Book for Class PP** is to be introduced in the schools from the year 2011, along with the new Mathematics Teacher's Guide for the same class. The term "Activity Book" is simply a change from the term "workbook". They mean the same. Even though we would be more familiar and used to the latter term, the former is a more suitable educational term now.

This **Student's Activity Book for Class PP** in mathematics is expected to fulfill the long desired need of such a book. This is something that the teachers have been expressing a wish for during the last several years even with the old mathematics curriculum.

The content organization of the **Activity Book** is reflective of that of the Teacher's Guide, in terms of the Chapter names and their listings. However, you will notice that Chapter 6 (Data Management), as it appears in the Teacher's Guide, is missing in the Activity Book. This is because there really was no appropriate paper-and-pencil activity with this particular chapter, at least for this first edition.

The mathematics curriculum emphasizes hands-on, practical, communication and reasoning intensive classroom activities often intended for group or pair-based engagement. It espouses students' capacity including: to discover ideas (and the need to be interested in discovering ideas); to deepen their reasoning skills; to build on their intuition; to arrive at common generalizations; and to create (or recreate) knowledge. The Teacher's Guide will aid the teachers in carrying out this curricular intention. The activities in the Activity Book, albeit paper-and-pencil based, are designed to support the activities suggested in the Teacher's Guide.

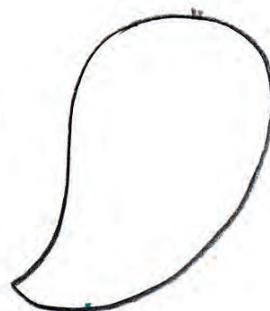
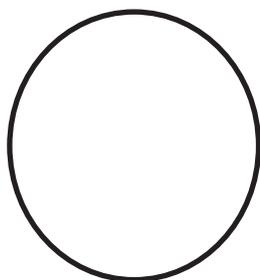
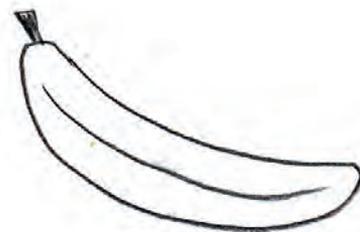
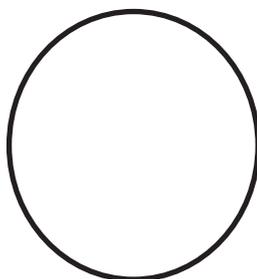
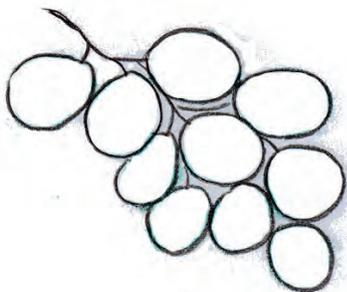
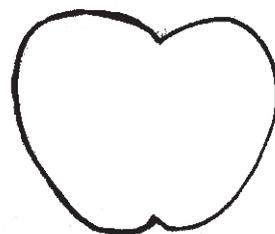
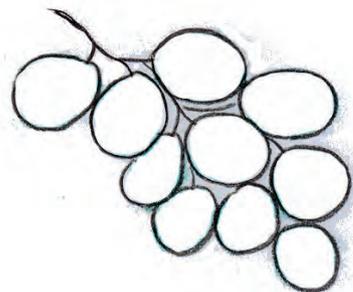
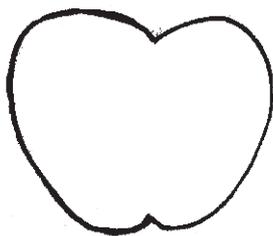
Following are some pertinent points related to this activity book and its intended manner of use.

- The activities serve as an extension of and support of the normal classroom activities. They cannot replace the real activities mentioned or suggested in the guide book.
- The activities for each chapter are generally intended for use further along or at the end of teaching the chapter, rather than at the outset.
- The students should normally do and complete the activities during the class hours under the close guidance of the teacher.
- Considering the general students' language proficiency at this level, the teacher would need to explain most of the instructions for the activities, even though they are written in a concise and easy to understand manner.
- The teacher should delve the students into verbal discussions on the activities to extend beyond simply completing the activities, wherever possible and appropriate. Many of the activities have this opportunity inherent in them. For example, once a student has done a matching activity, the teacher can ask why and how he or she did the matching.
- Some of the activities could be done in more than one valid way, depending on how the students reason with the problem. That is why it would be important to ask the students for their reasons, where appropriate.
- The **Teacher's Remark(s)** space, provided below each activity, is intended to provide a space in which the teacher may record any useful and interesting anecdotes concerning the child and the particular activity. The anecdotal records could also help the teacher in assessing the student's learning. The space could also be used to communicate messages to the parents and caregivers of the child.
- The Reproducible pages at the end of the book would serve as ready material resources for some of the activities in the Teacher's Guide requiring them.
- The Summative Assessment Recording Sheets included at the end of the book are meant for the teacher to record the student's understanding and achievement of the learning goals for each chapter assessed through the means of Interview-based Performance Tasks. The teacher could remove these sheets from the book and maintain them in separate files for the student's assessment records.
- There is no assumption that this Activity Book, beside the Teacher's Guide, would be sufficient as a programme of studies for mathematics in class PP. The teacher is encouraged to go beyond what is presented here to make additional activity sheets for the students, as needed.

The Primary Mathematics Section, REC, would welcome comments and feedback from teachers and other users of this Activity Book that may contribute to its improvement. We wish success and enjoyment in the teaching and learning of mathematics for teachers and students.

Trashi Delek.

Colour the same picture with the same colours.

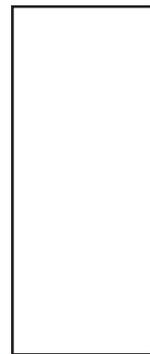
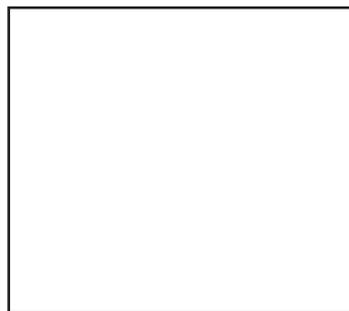
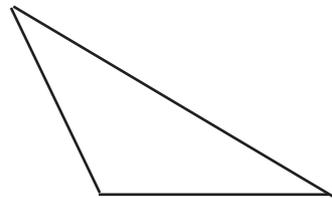
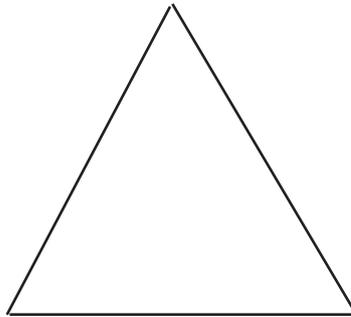
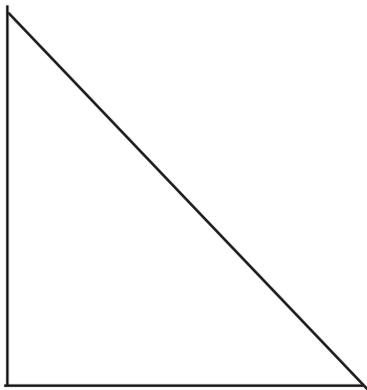
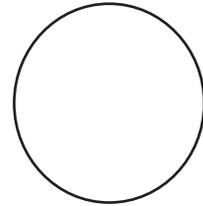
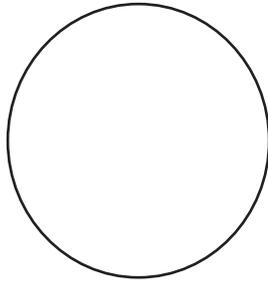
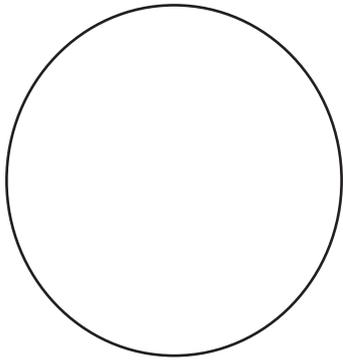


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Teacher's Remark(s):

Teacher's Signature and Date:

Colour the **circles** blue, the **triangles** orange, and the **rectangles** purple.

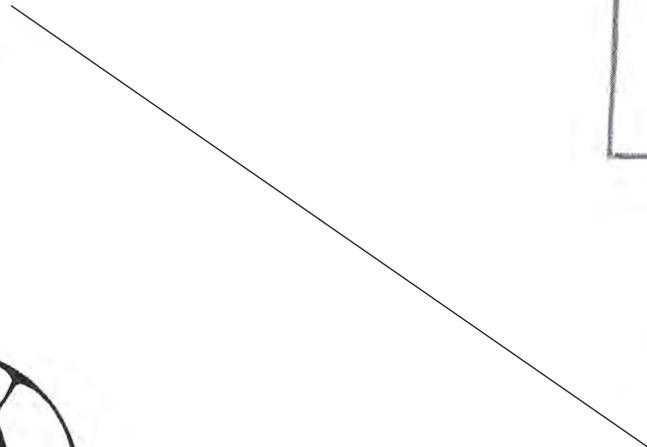
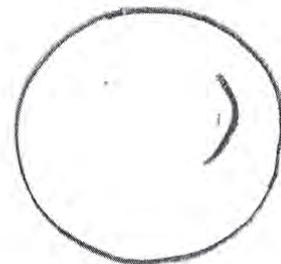
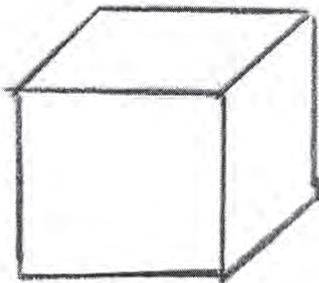
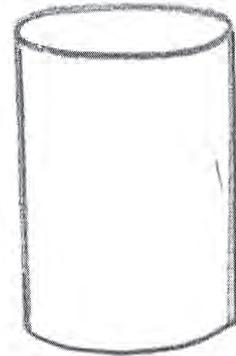
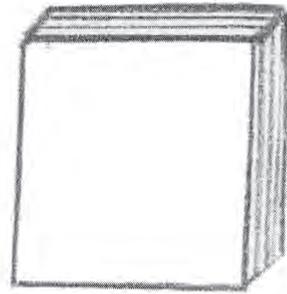
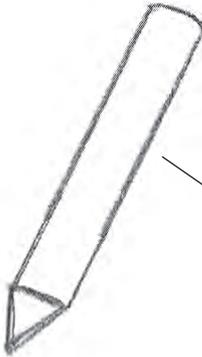


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Teacher's Remark(s):

Teacher's Signature and Date:

Match two objects (based on shape).

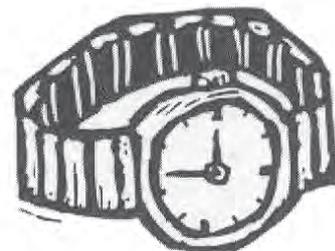
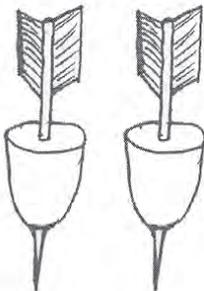
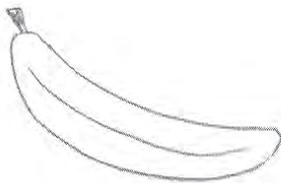
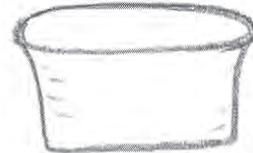
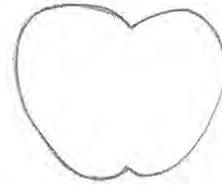
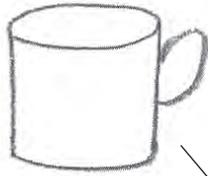


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Teacher's Remark(s):

Teacher's Signature and Date:

Match two pictures (based on use).

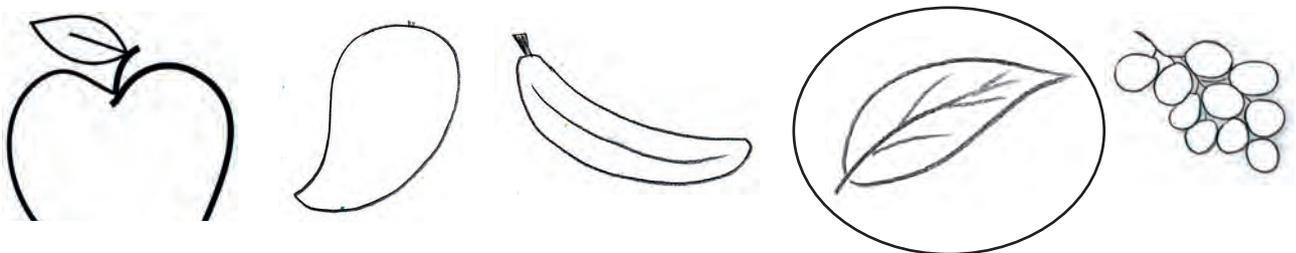
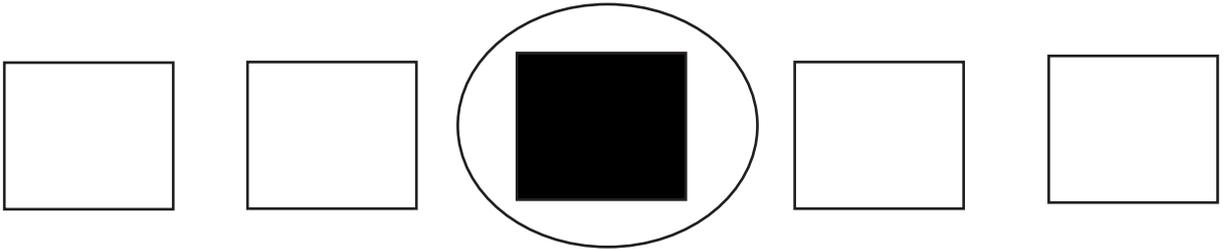
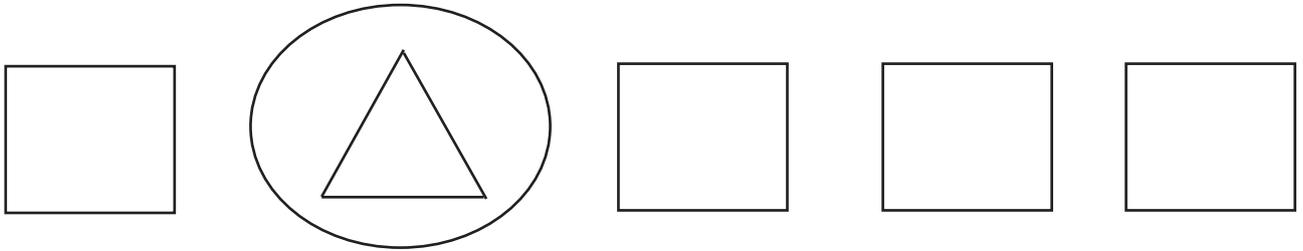


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Teacher's Remark(s):

Teacher's Signature and Date:

The circled object does not belong in the group. Why do you think so? Explain verbally.

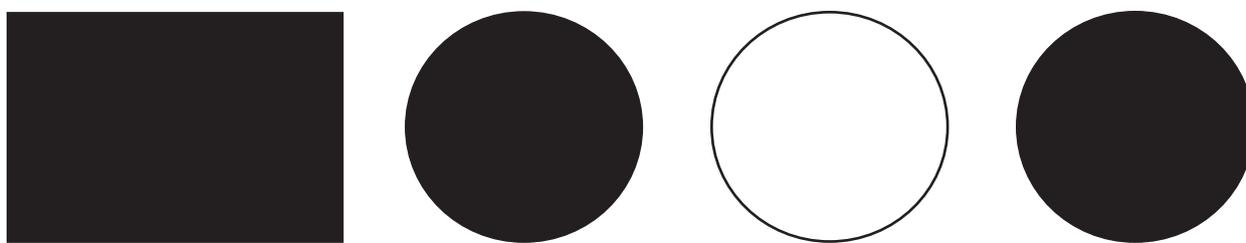
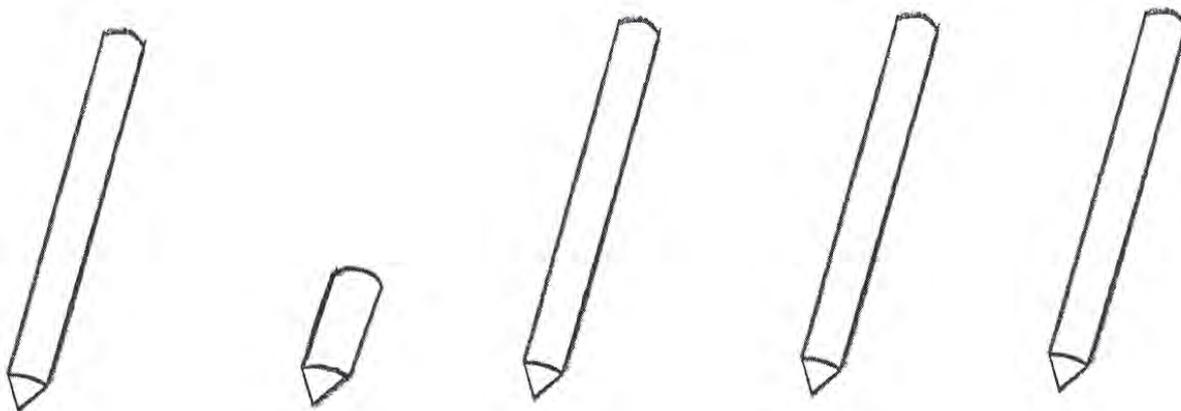


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Teacher's Remark(s):

Teacher's Signature and Date:

Circle the object which does not belong in the group. Explain your choice verbally.



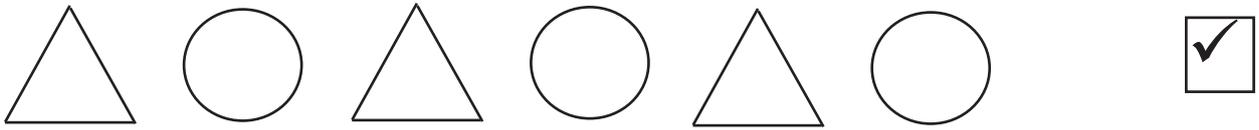
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Teacher's Remark(s):

Teacher's Signature and Date:

Do you see a pattern? Tick **yes** (✓) or **no** (x), and explain verbally.

Example

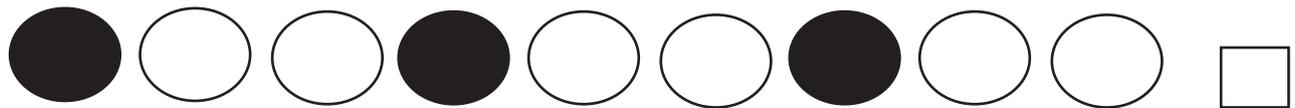


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Teacher's Remark(s):

Teacher's Signature and Date:

Do you see a pattern? Tick **yes** (✓) or **no** (x), and explain verbally.



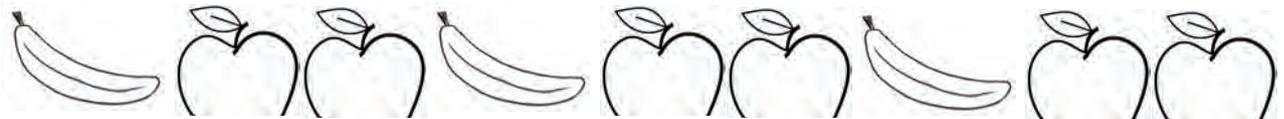
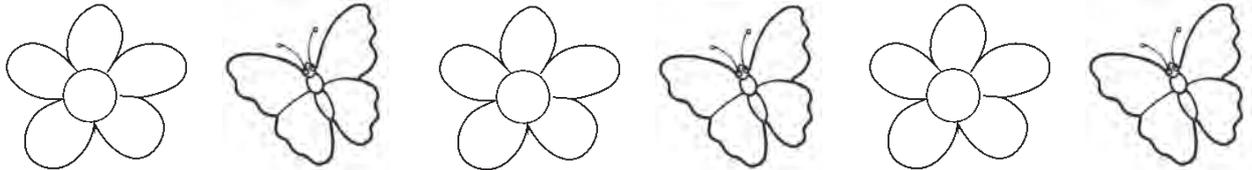
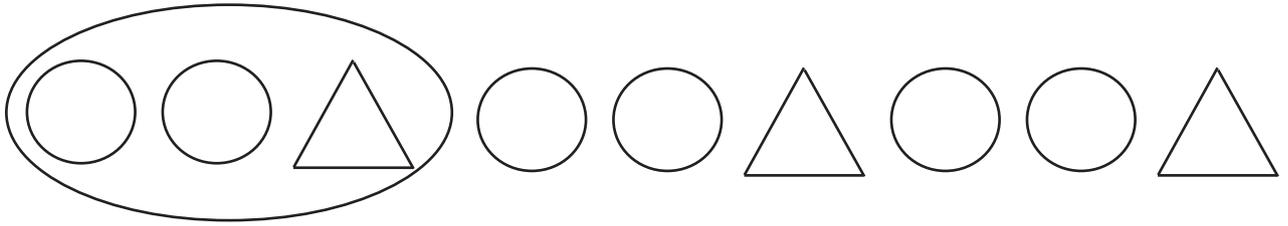
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Teacher's Remark(s):

Teacher's Signature and Date:

Circle the part that repeats over and over again in each pattern below.

Example



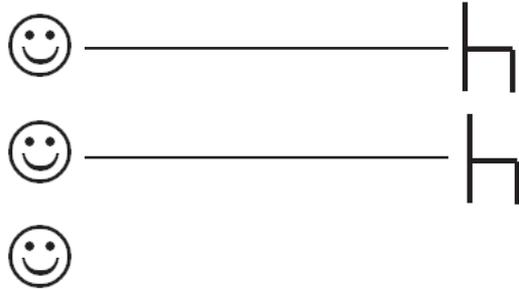
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Teacher's Remark(s):

Teacher's Signature and Date:

Match the childrens (☺) to the chairs (h), and tell which is **more**.

Example



There are **more** ☺ than h.



There are **more** \_\_\_\_\_ than \_\_\_\_\_.



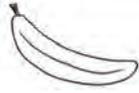
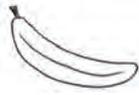
There are **more** \_\_\_\_\_ than \_\_\_\_\_.

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Teacher's Remark(s):

Teacher's Signature and Date:

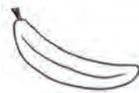
Match the apples () to the bananas () , and tell which is **less**.



There are **less** \_\_\_\_\_ than \_\_\_\_\_.



There are **less** \_\_\_\_\_ than \_\_\_\_\_.



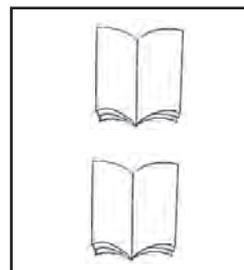
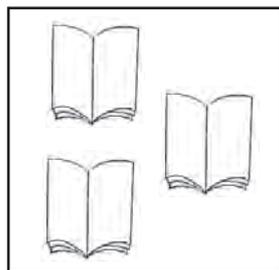
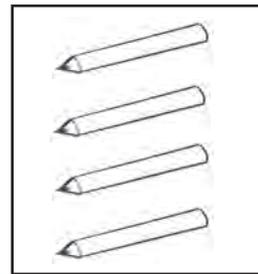
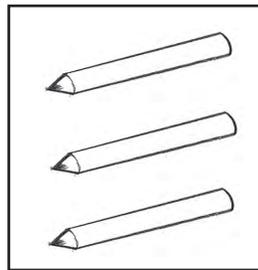
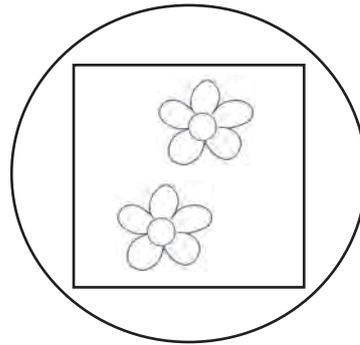
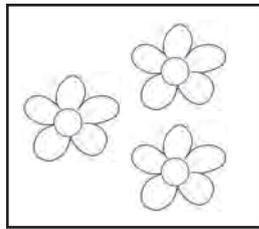
There are **less** \_\_\_\_\_ than \_\_\_\_\_.

Teacher's Remark(s):

Teacher's Signature and Date:

Circle the box that is **less**.

Example

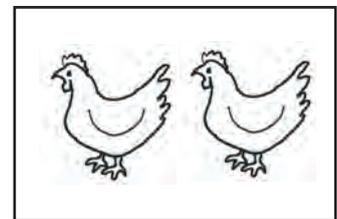
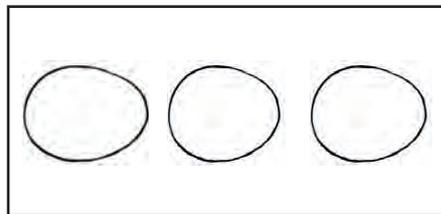
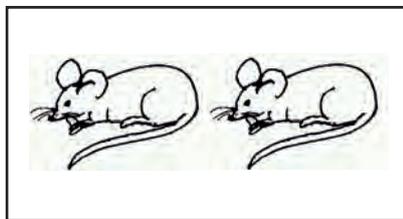
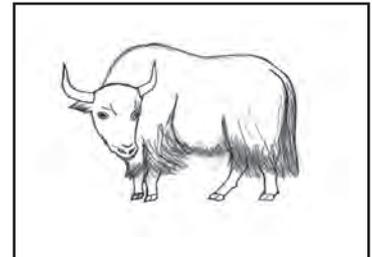
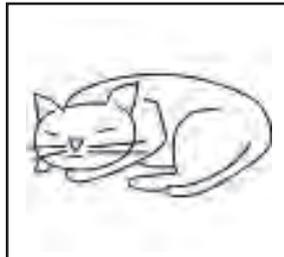
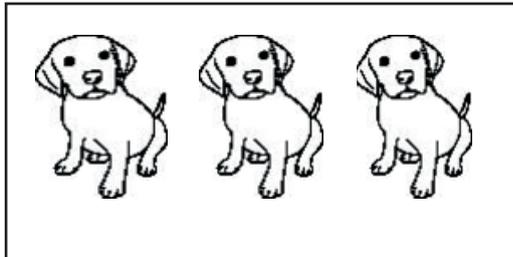
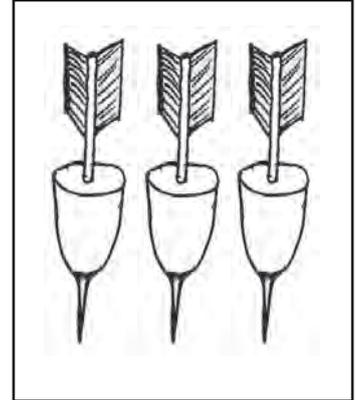
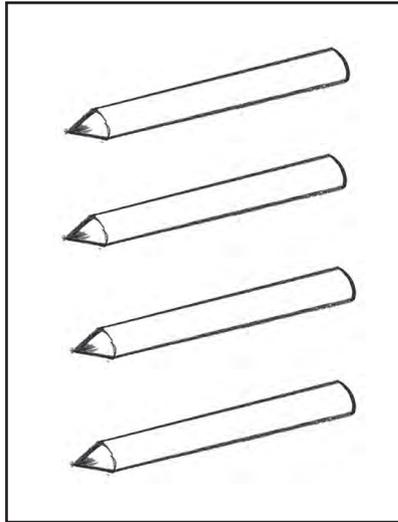
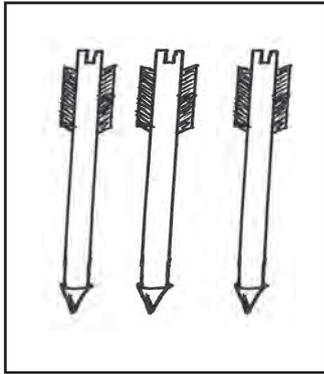


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Teacher's Remark(s):

Teacher's Signature and Date:

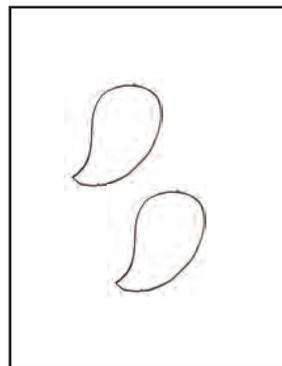
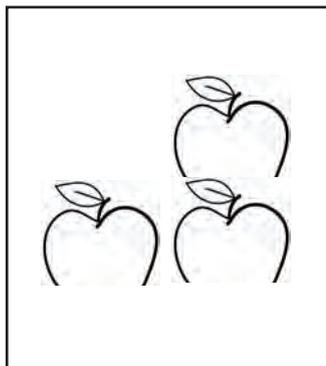
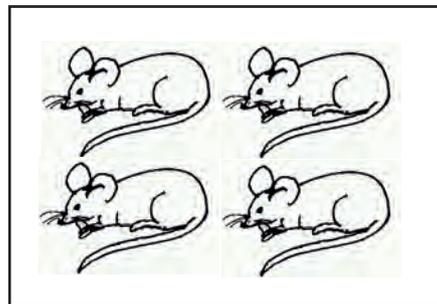
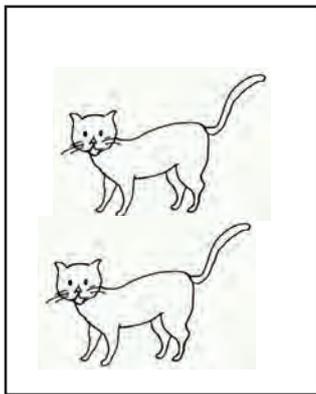
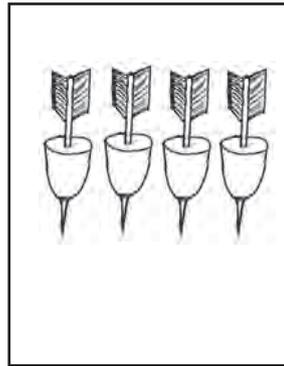
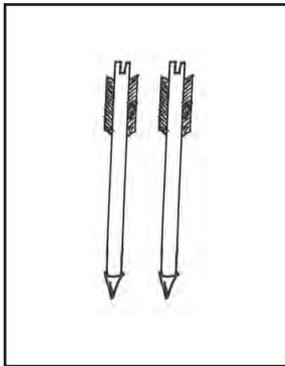
Circle the box that is the **same**.



Teacher's Remark(s):

Teacher's Signature and Date:

Circle the box that is **more**.



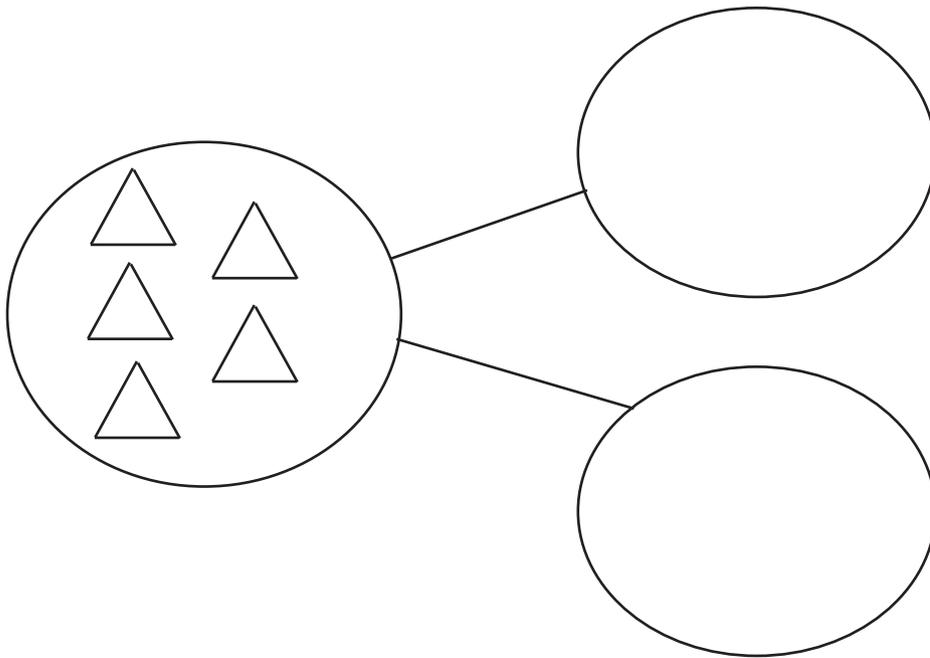
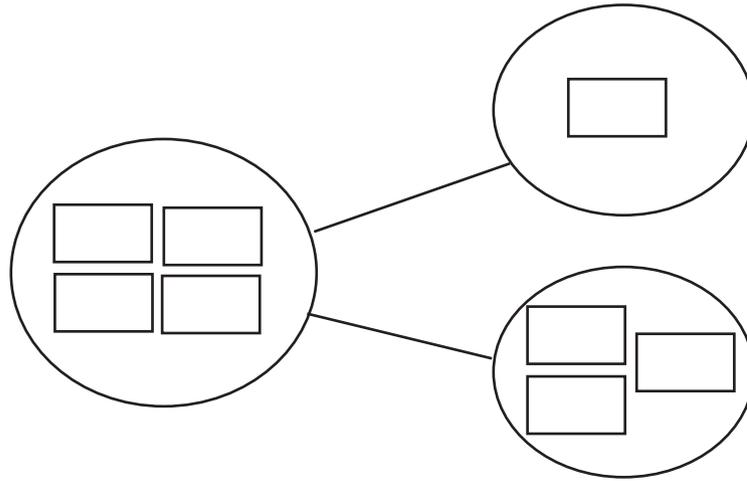
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Teacher's Remark(s):

Teacher's Signature and Date:

Break the set into two smaller sets, so that one set has more items than the other.

Example



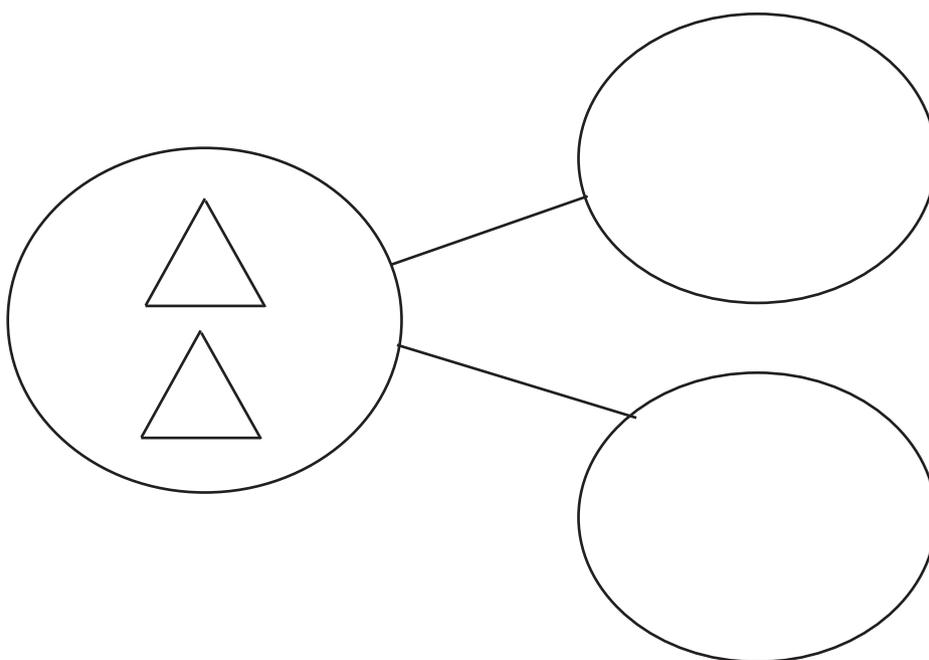
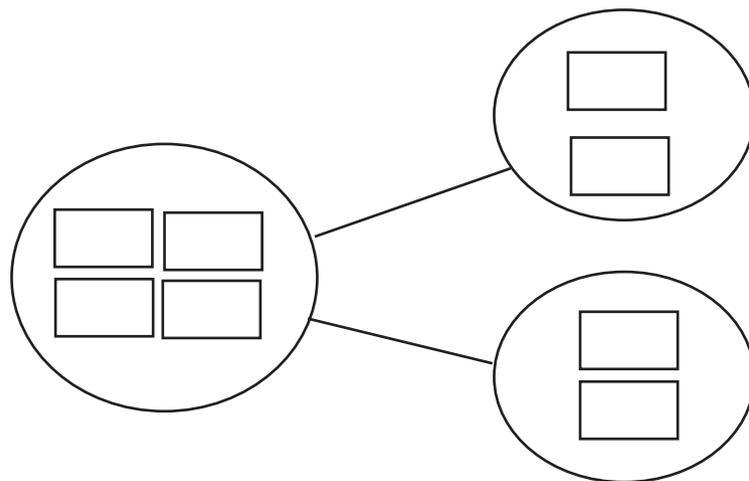
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Teacher's Remark(s):

Teacher's Signature and Date:

Break the set into two smaller sets, so that the two smaller sets have **the same** number of items.

Example

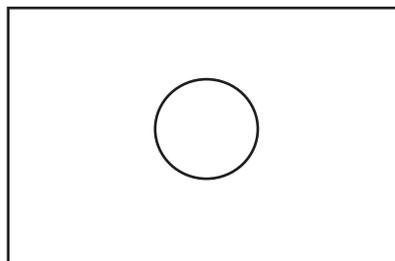
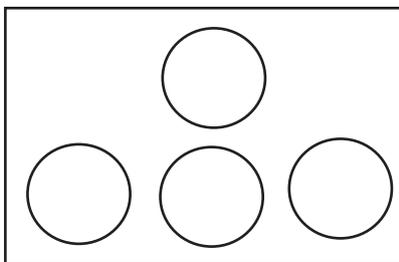
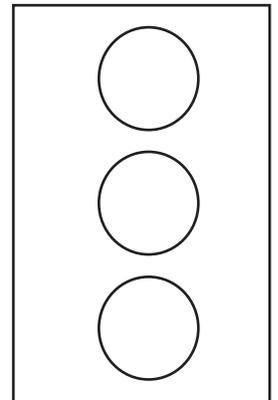
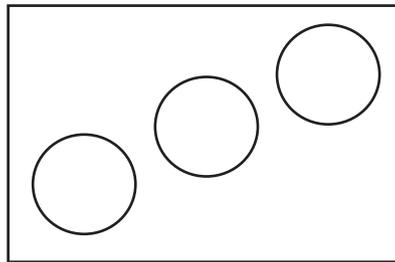
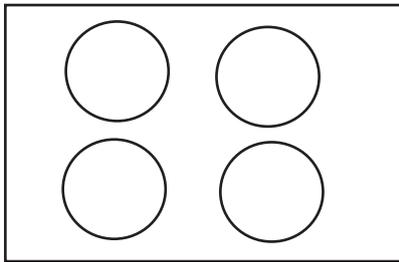
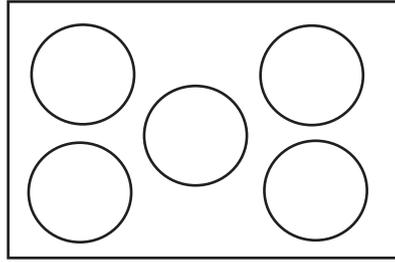
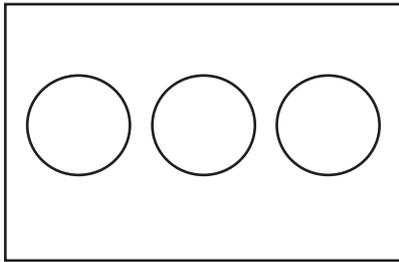
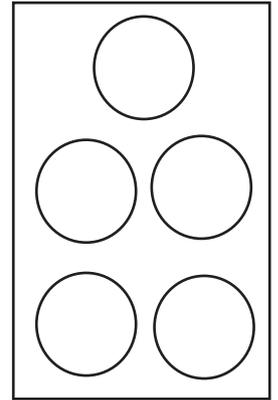
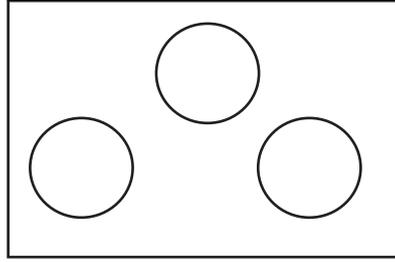
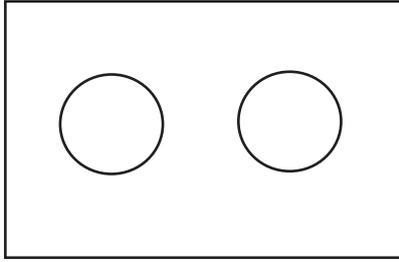


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Teacher's Remark(s):

Teacher's Signature and Date:

Colour all the sets showing this many - 



Teacher's Remark(s):

Teacher's Signature and Date:

# 1 one fish

Trace:

Tracing practice for the number 1. The first row shows six dashed vertical lines with a small arrow at the top and a downward-pointing arrow at the bottom, indicating the stroke direction. The following two rows each contain six dashed vertical lines for tracing, each starting with a small arrow at the top.

Draw:

Handwriting practice for the number 1. The first row shows a solid vertical line with a small arrow at the top. Below this are several empty horizontal lines for independent drawing of the number 1.

Teacher's Remark(s):

Teacher's Signature and Date:

# 2 two eyes

Trace:

Tracing practice for the number 2. It consists of three rows of handwriting lines. Each row contains six dashed number 2s. Each dashed number 2 has a small arrow at the top left indicating the starting point and direction of the stroke.

Write:

Handwriting practice for the number 2. It starts with a row of handwriting lines where the number 2 is written in a light, solid font. Below this are several more rows of empty handwriting lines for independent practice.

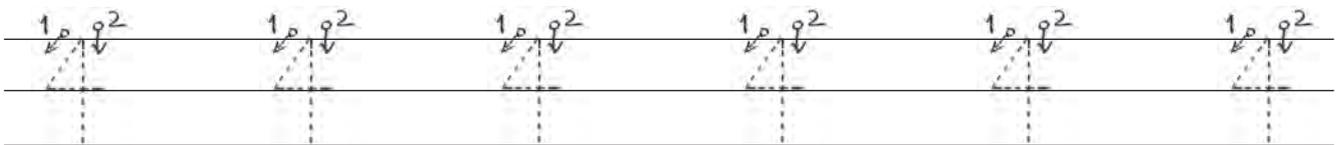
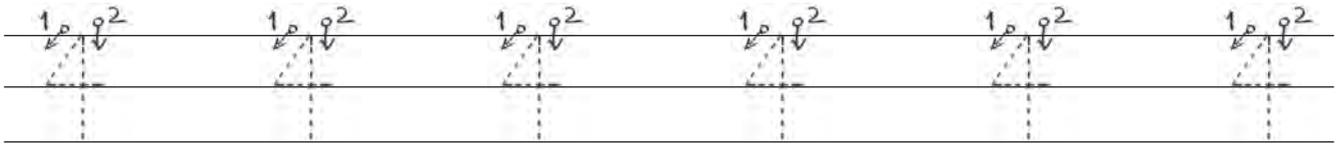
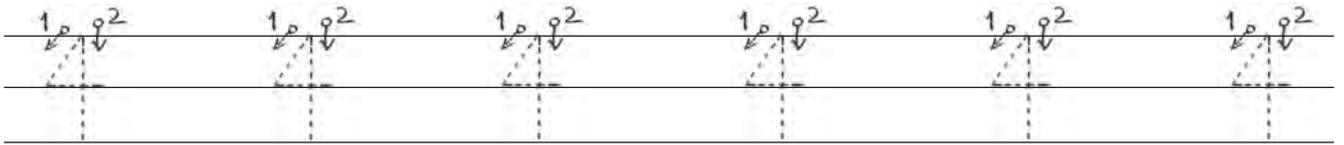
Teacher's Remark(s):

Teacher's Signature and Date:



# 4 four flowers

Trace:



Write:

4

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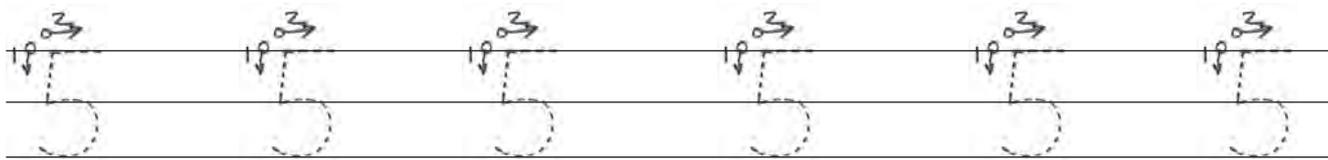
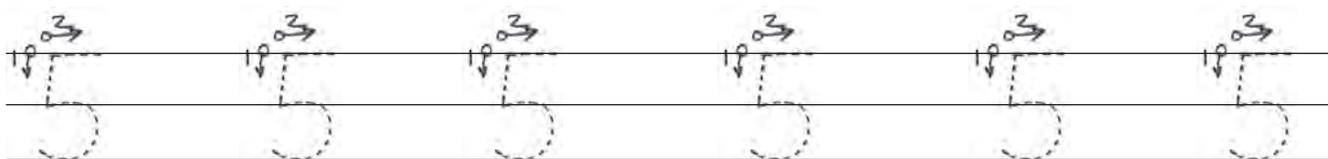
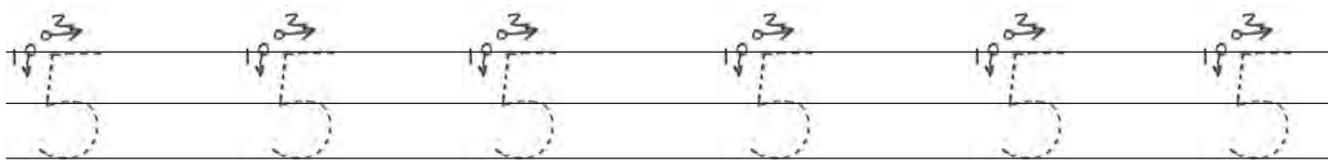
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Teacher's Remark(s):

Teacher's Signature and Date:

# 5 five stars

Trace:



Write:

5

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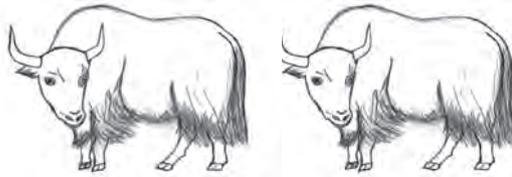
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Teacher's Remark(s):

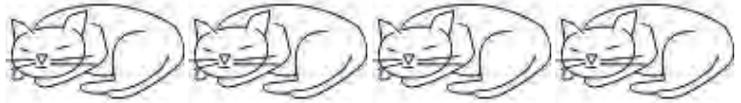
Teacher's Signature and Date:

Match the numeral to the pictures.

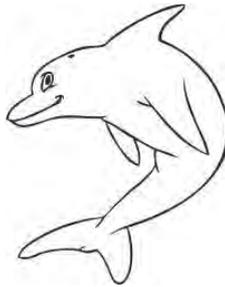
1



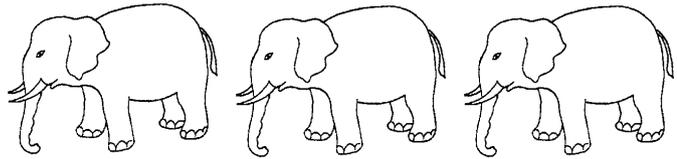
2



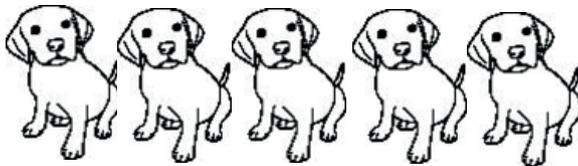
3



4



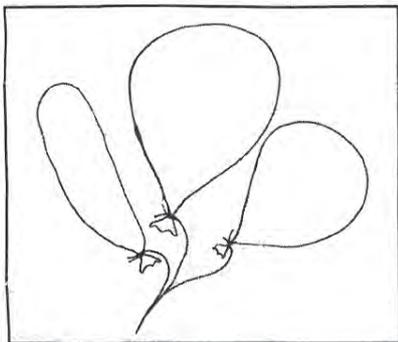
5



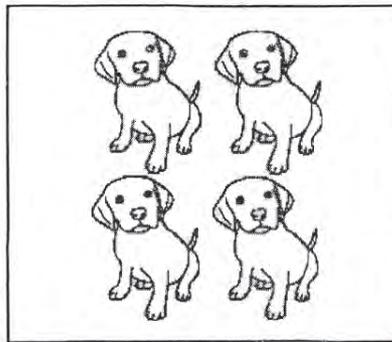
Teacher's Remark(s):

Teacher's Signature and Date:

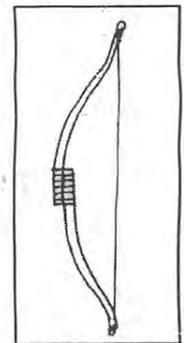
Count and write the number below each set.



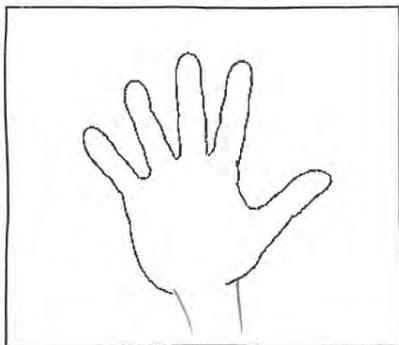
  3   balloons



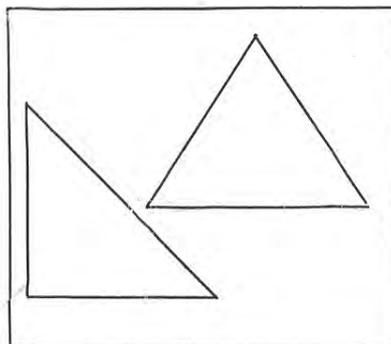
       puppies



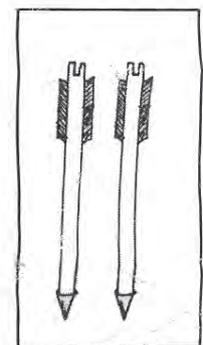
       bow



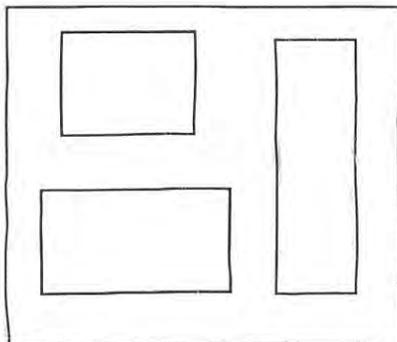
       fingers



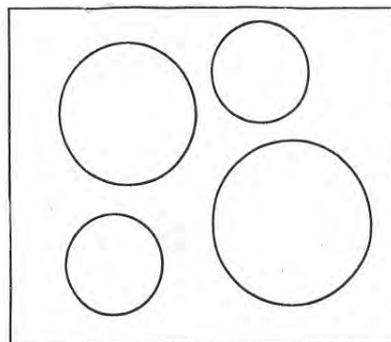
       triangles



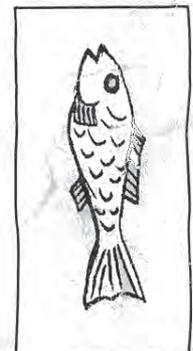
       arrows



       rectangles



       circles



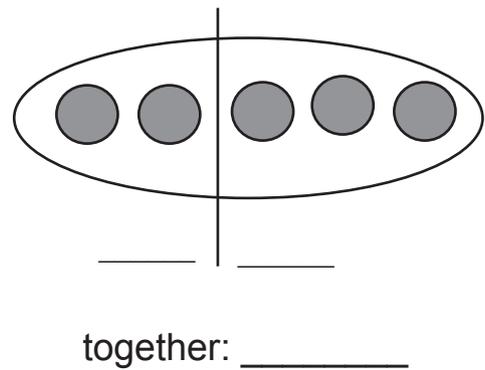
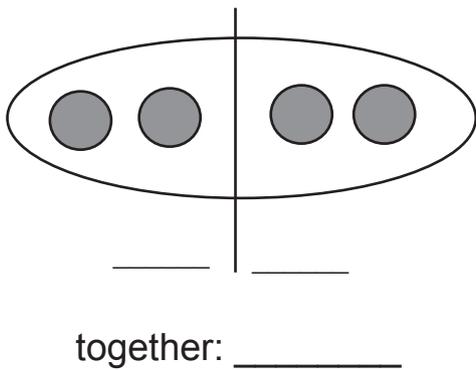
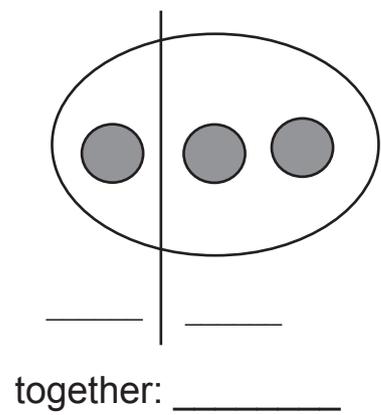
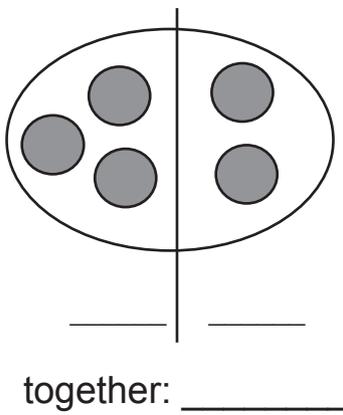
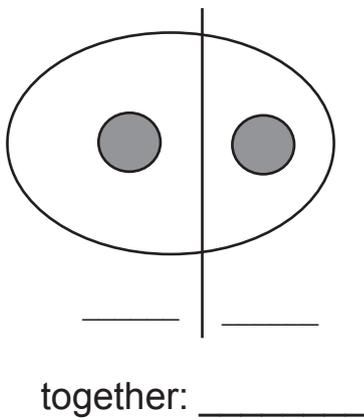
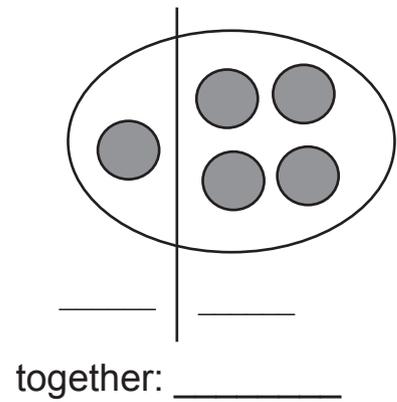
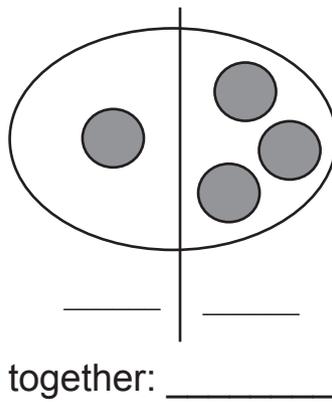
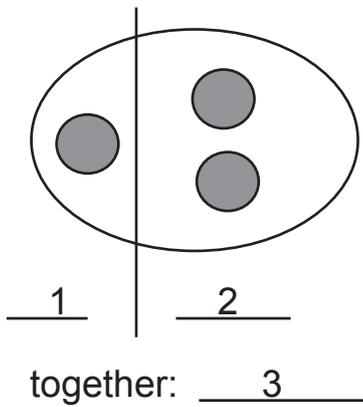
       fish

Teacher's Remark(s):

Teacher's Signature and Date:

Count, and write the numbers on each side of the separating line for the set. Then write the number for the whole set.

Example

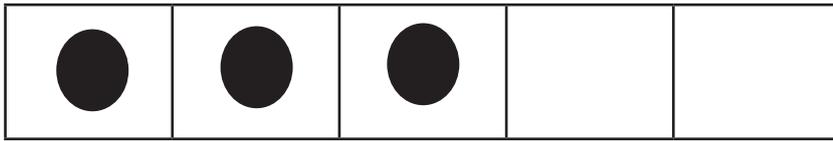


Teacher's Remark(s):

Teacher's Signature and Date:

Write the number of counters shown on the 5-frame.

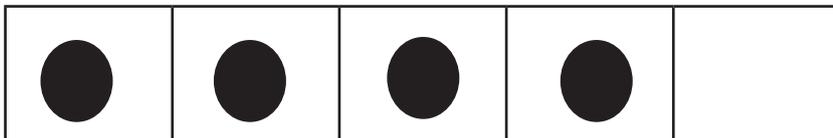
Example



3



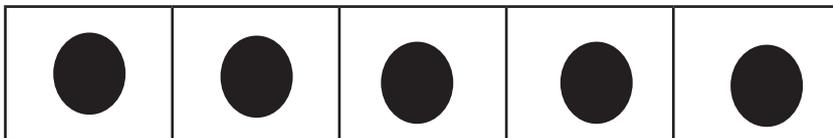
\_\_\_\_\_



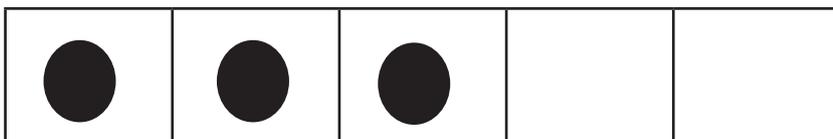
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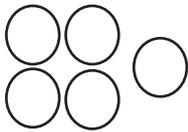
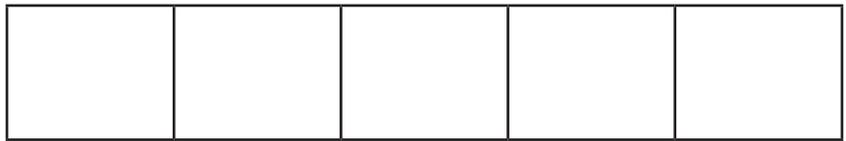
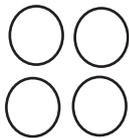
Teacher's Remark(s):

Teacher's Signature and Date:

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Put the counters on the 5-frame by drawing.

Example

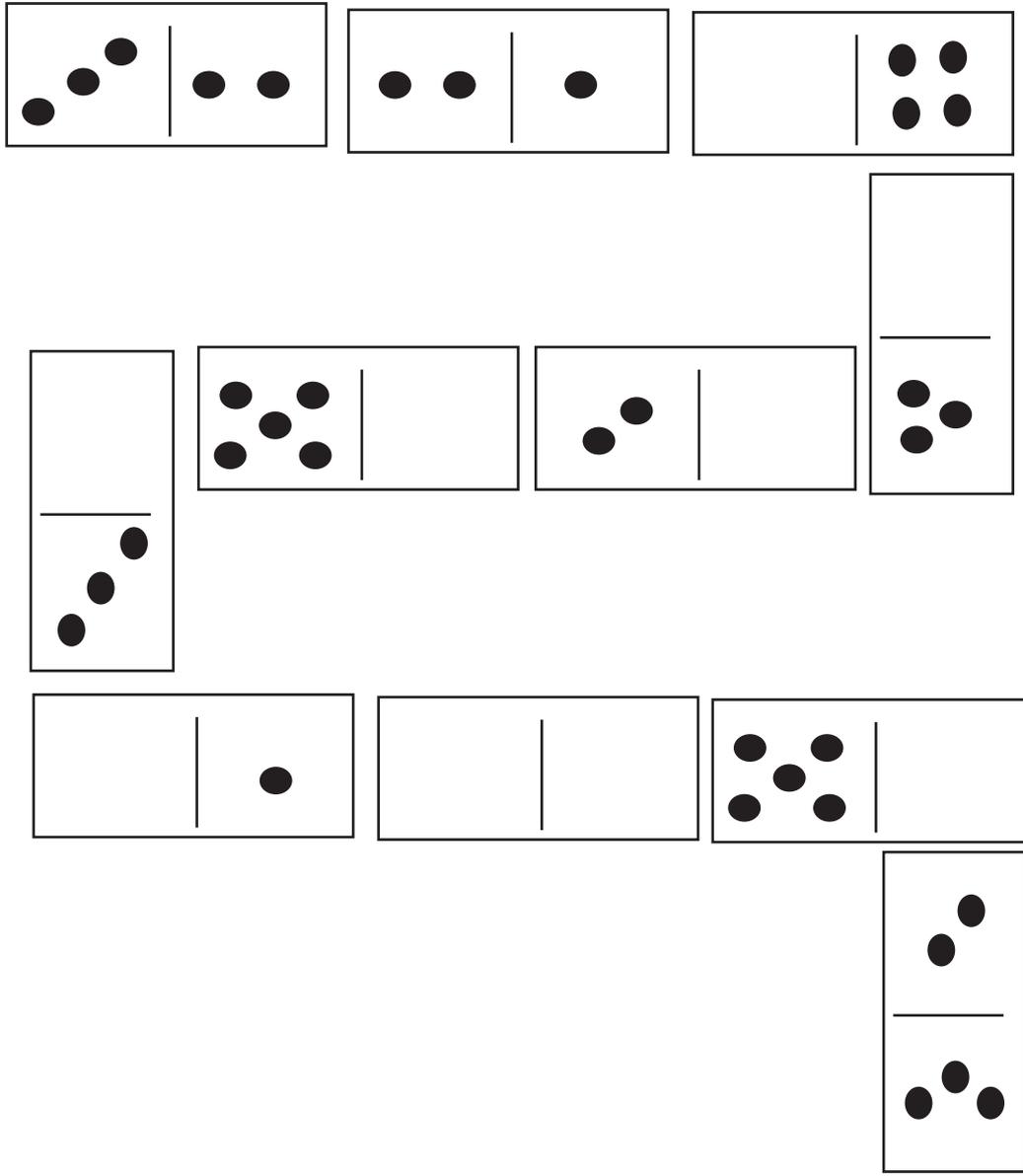


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Teacher's Remark(s):

Teacher's Signature and Date:

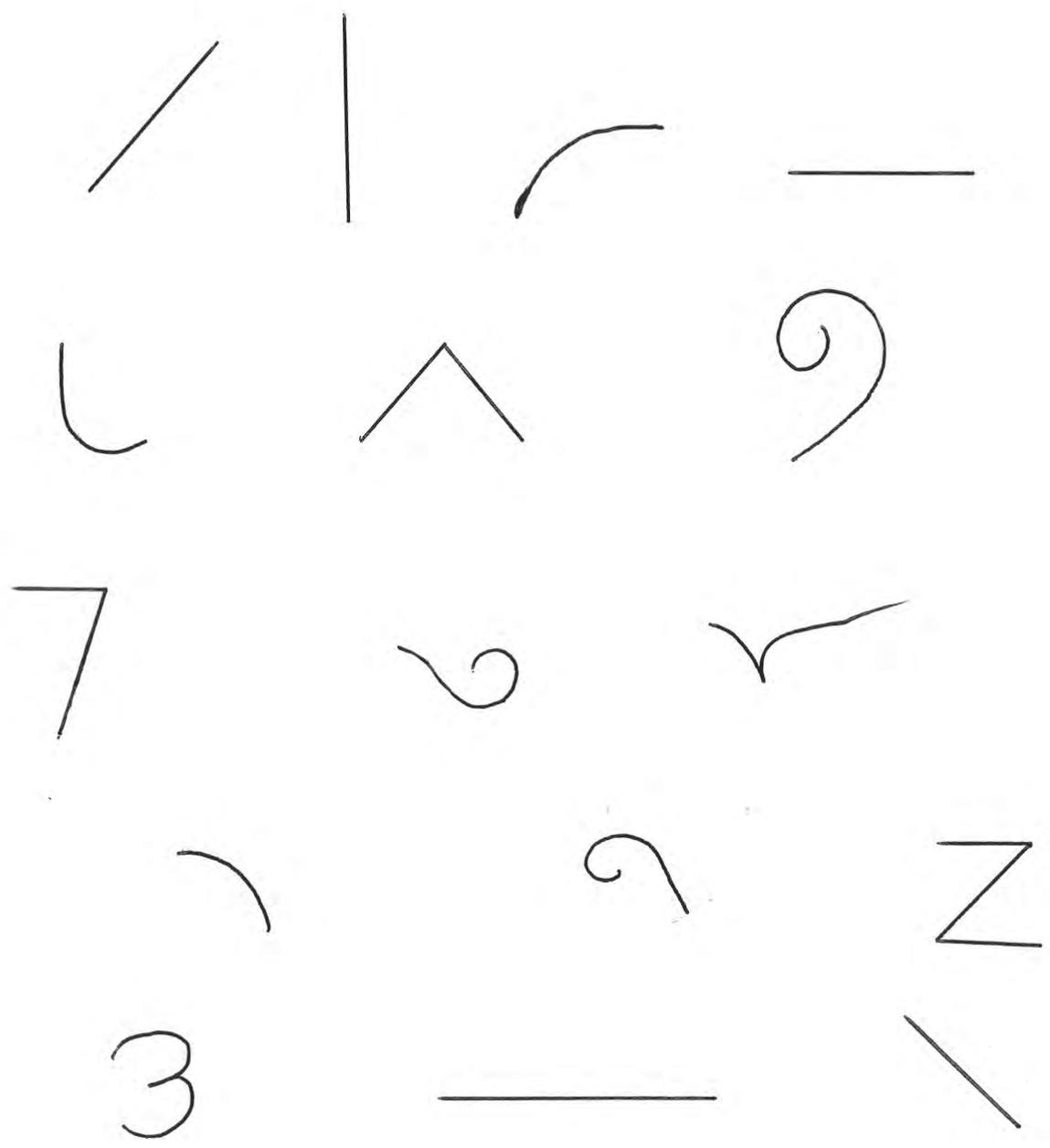
Fill the empty sides of the domino cards with dots, so that the number of dots on one side of a card is the same as the number of dots on the side of the card next to it. The first one has been done for you.



Teacher's Remark(s):

Teacher's Signature and Date:

Circle the **curved** lines.

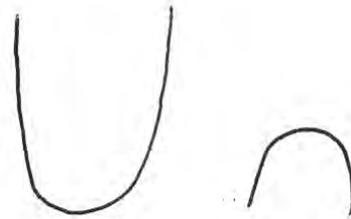
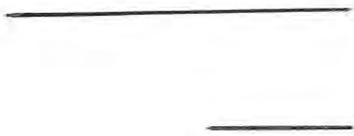
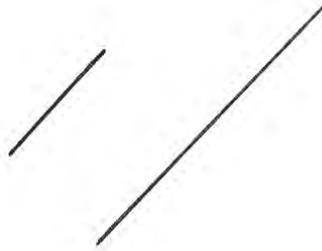


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Teacher's Remark(s):

Teacher's Signature and Date:

Look at the pairs of lines, and circle the **shorter** line in each pair.



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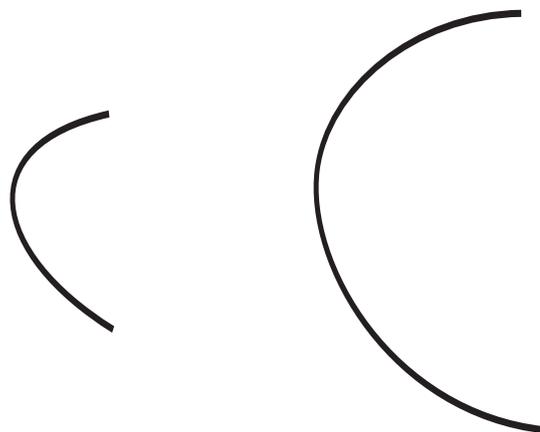
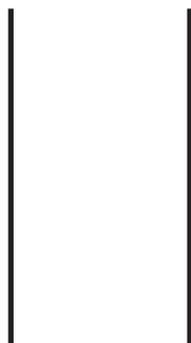
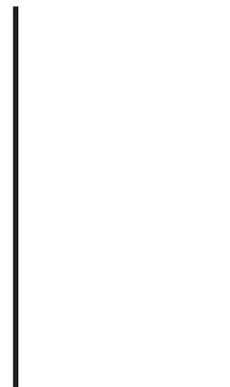
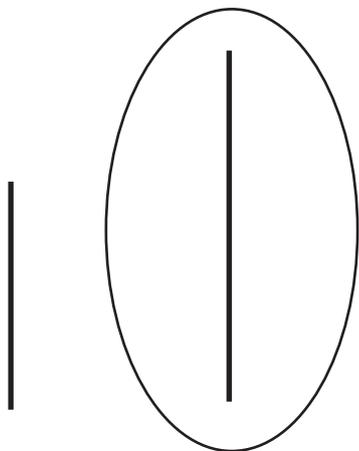
Teacher's Remark(s):

Teacher's Signature and Date:

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Circle the longer line.

Example

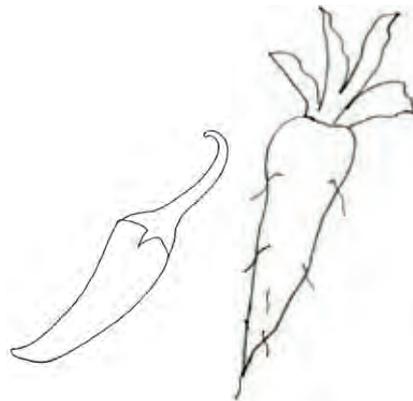
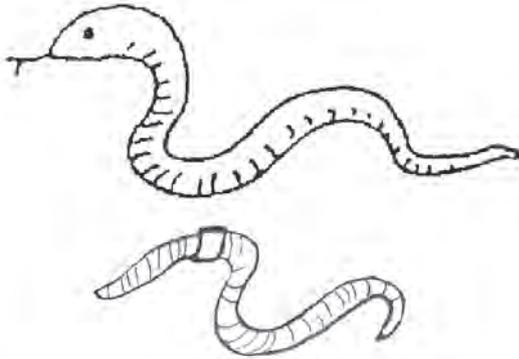
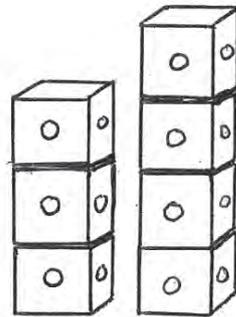
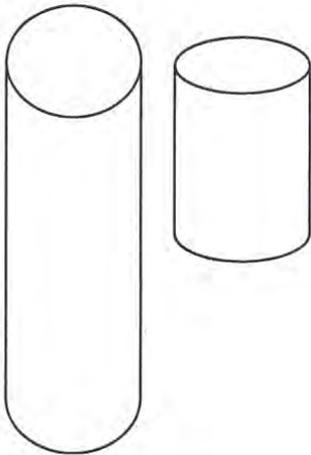
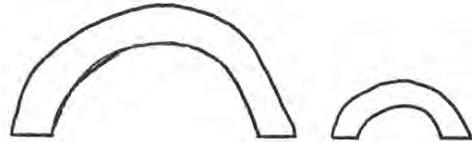
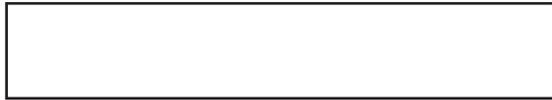


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Teacher's Remark(s):

Teacher's Signature and Date:

Look at the pairs of shapes, and colour the **longer** shape in each pair.



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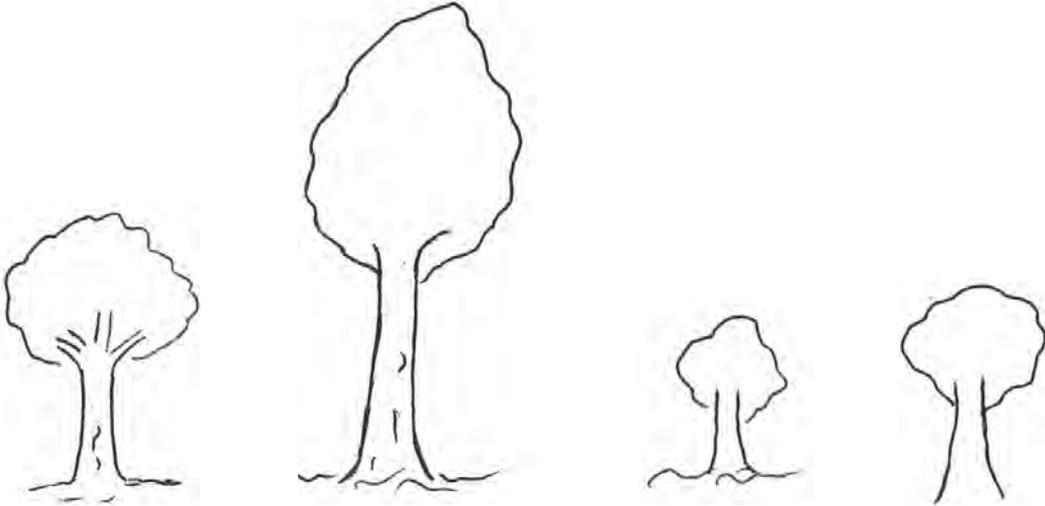
Teacher's Remark(s):

Teacher's Signature and Date:

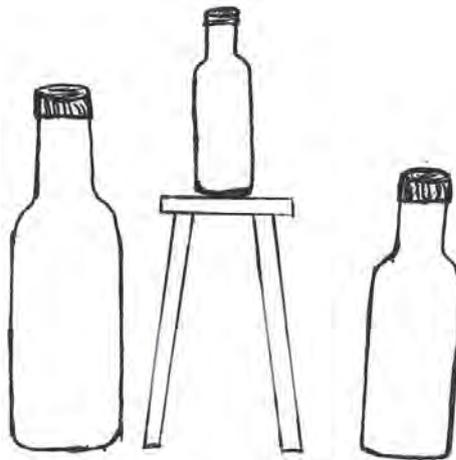
Colour the **longest** rectangle.



Colour the **tallest** tree.



Colour the **shortest** bottle.



Teacher's Remark(s):

Teacher's Signature and Date:

Is each of the following a pattern? Tick (✓) **yes** or **no** (x).  
 For the sequence of lines that is a pattern, circle the part that repeats over and over again.

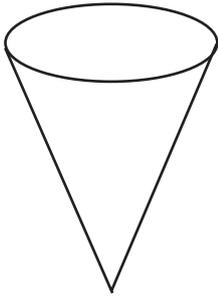
example

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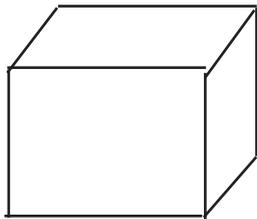
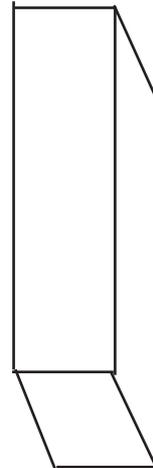
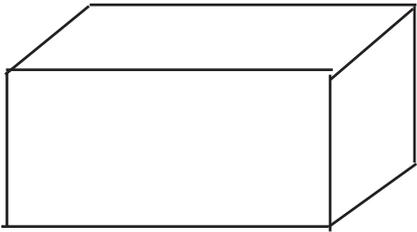
Teacher's Remark(s):

Teacher's Signature and Date:

Colour the **sphere** green, and the **cone** yellow.



Colour the **rectangular prisms** red, and the **cylinders** blue.

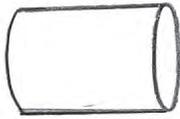


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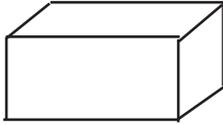
Teacher's Remark(s):

Teacher's Signature and Date:

Match the shapes to the words.



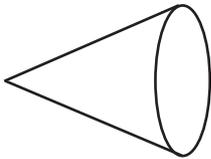
rectangular prism



sphere

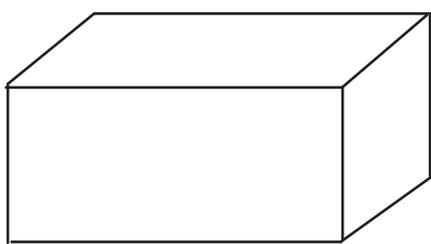


cone



cylinder

Label the parts of the **rectangular prism**.



corner

edge

face

---

Teacher's Remark(s):

Teacher's Signature and Date:

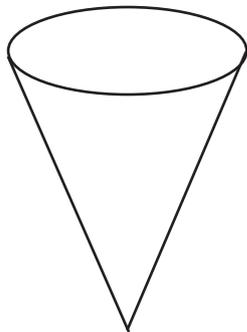
Label the parts of the **cylinder**.



face

edge

Label the parts of the **cone**.



face

apex

---

Teacher's Remark(s):

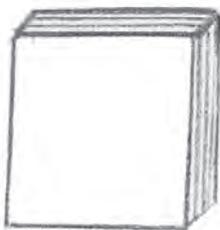
Teacher's Signature and Date:

Choose the word from (**cylinder**, **cone**, **rectangular prism**, **sphere**) that describes the shape of a football.



\_\_\_\_\_

Choose the word from (**cylinder**, **cone**, **rectangular prism**, **sphere**) that describes the shape of a book.



\_\_\_\_\_

What two shapes can you see with the pencil? Write them



\_\_\_\_\_

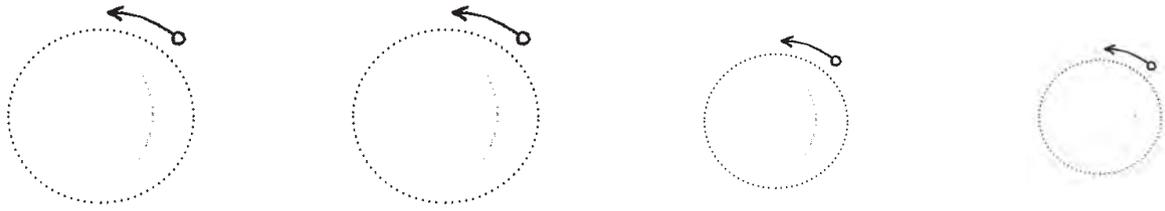
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Teacher's Remark(s):

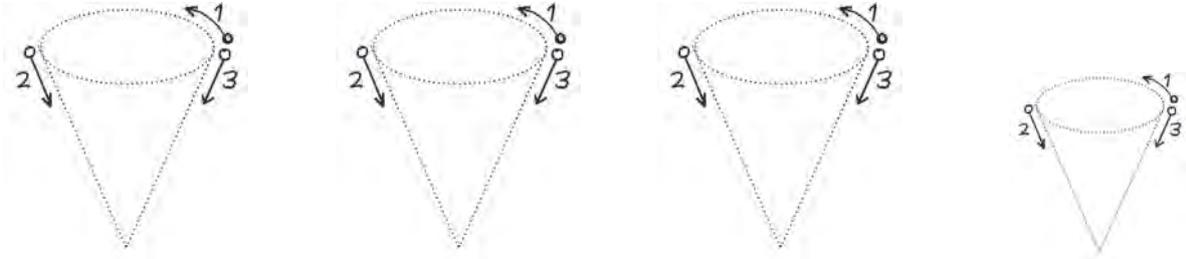
Teacher's Signature and Date:

Trace the spheres.



Draw 3 spheres.

Trace the cones.



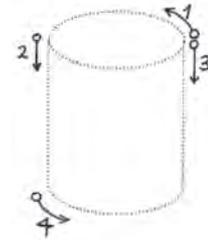
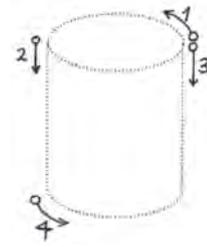
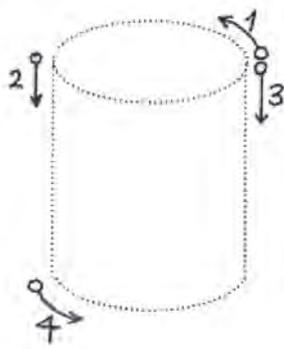
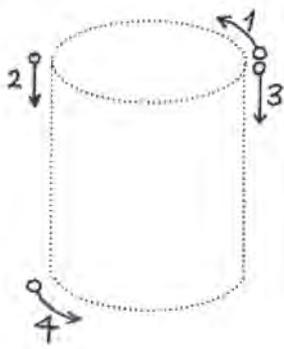
Draw 2 cones.

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Teacher's Remark(s):

Teacher's Signature and Date:

Trace the cylinders.



Draw 3 cylinders.

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Teacher's Remark(s):

Teacher's Signature and Date:

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Trace the rectangular prisms.



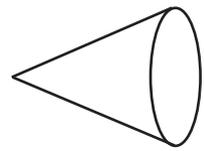
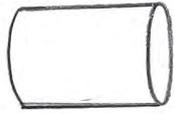
Draw 3 rectangular prisms.

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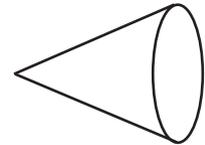
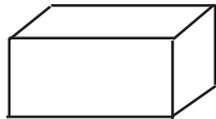
Teacher's Remark(s):

Teacher's Signature and Date:

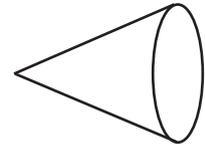
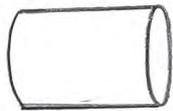
Circle the shapes that will roll.



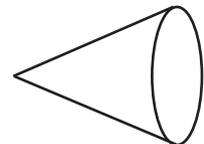
Circle the shapes that will slide.



Circle the shapes that will only roll.



Circle the shapes that will only slide.

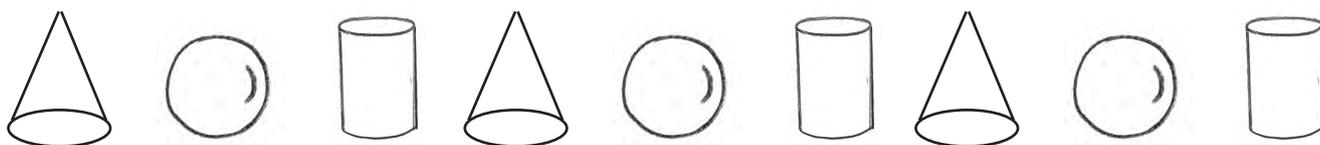
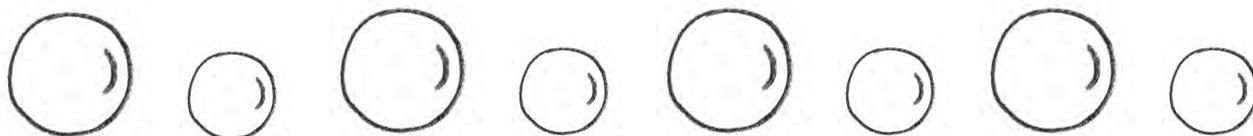


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Teacher's Remark(s):

Teacher's Signature and Date:

Circle the part that repeats over and over again in the following shape patterns.

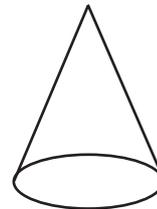
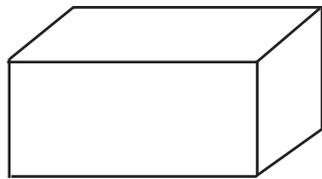


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Teacher's Remark(s):

Teacher's Signature and Date:

Draw some towers using any of the shapes given here. Tell which shapes you used for the bases of your towers.

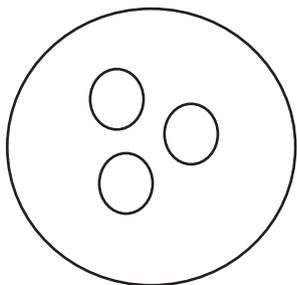


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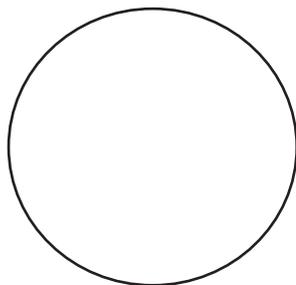
Teacher's Remark(s):

Teacher's Signature and Date:

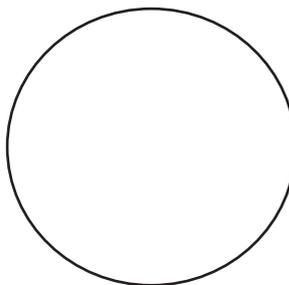
Draw sets with **more than 3**, **less than 3**, and **3** counters, as indicated.



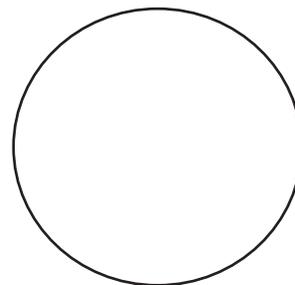
3



more than 3



less than 3



3

Draw counters on the 5-frames, as indicated.

Example

2



more than 2



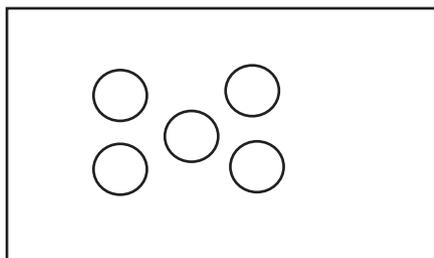
less than 2



Teacher's Remark(s):

Teacher's Signature and Date:

Draw items in the sets, as indicated.



5



less than 5



more than 5



5

Write the numbers from 1 to 5, as shown.

1

2

3

4

5

---

Teacher's Remark(s):

Teacher's Signature and Date:



7



seven butter lamps

Trace:

Three rows of handwriting practice. Each row contains six dashed numbers '7' on a set of three horizontal lines. Each '7' has a small arrow at the top pointing to the right, indicating the starting point and direction of the stroke.

Write:

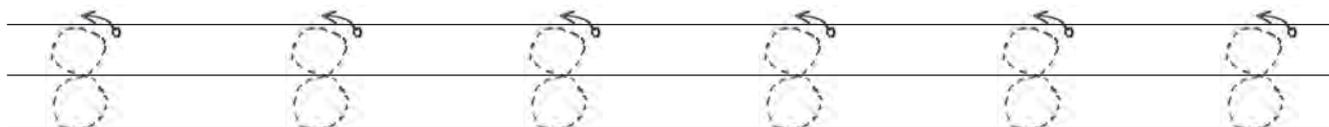
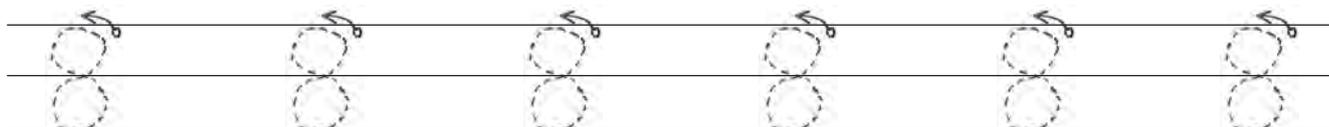
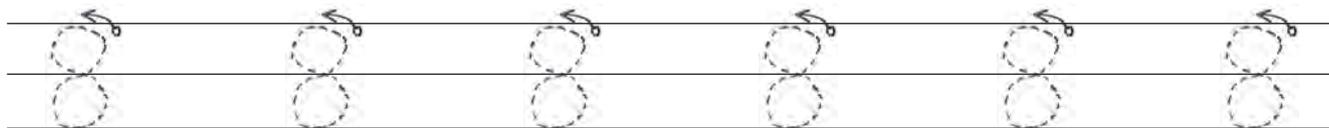
Handwriting practice lines. The first row shows a solid number '7' on a set of three horizontal lines. Below this are several more rows of empty three-line sets for independent practice.

Teacher's Remark(s):

Teacher's Signature and Date:

**8** ○ ○ ○ ○ ○ ○ ○ ○  
**eight circles** ○ ○

Trace:



Write:

○

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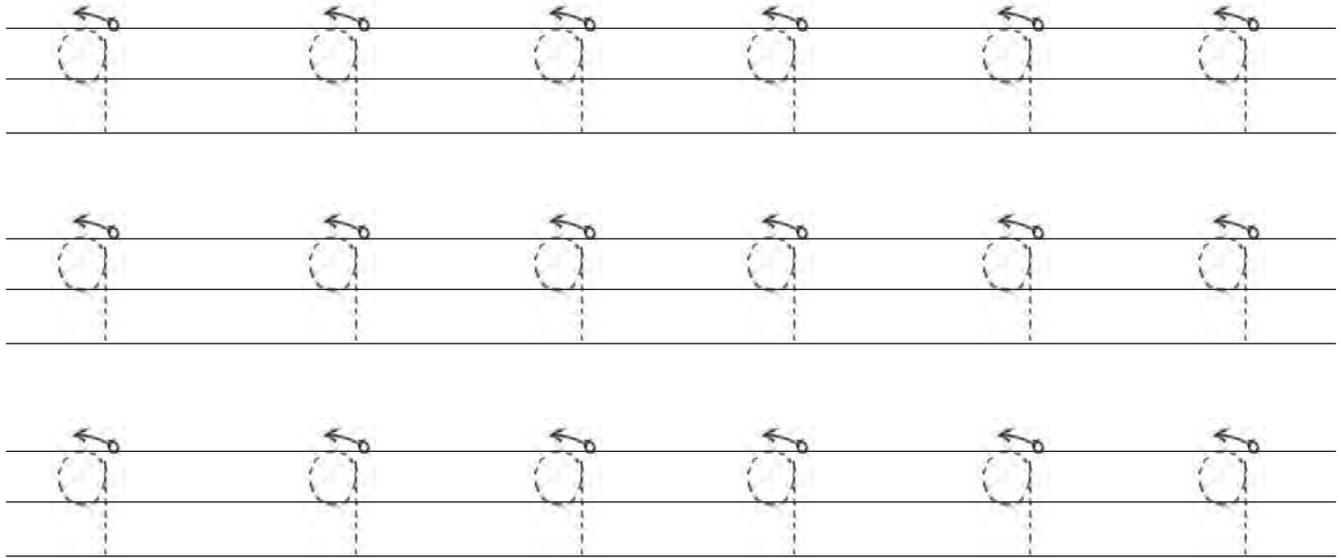
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Teacher's Remark(s):

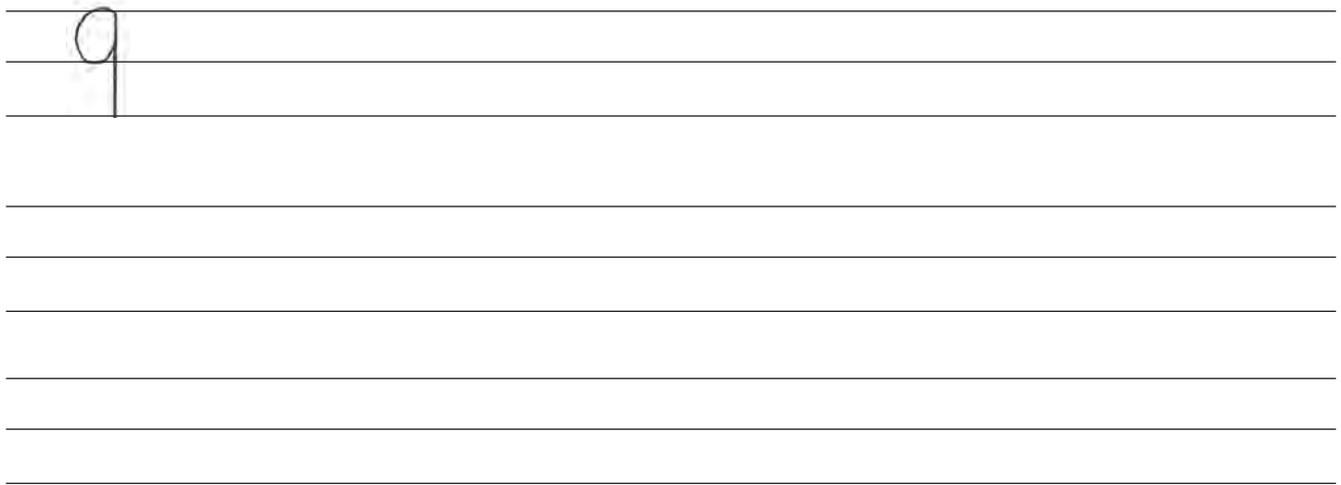
Teacher's Signature and Date:



Trace:



Write:

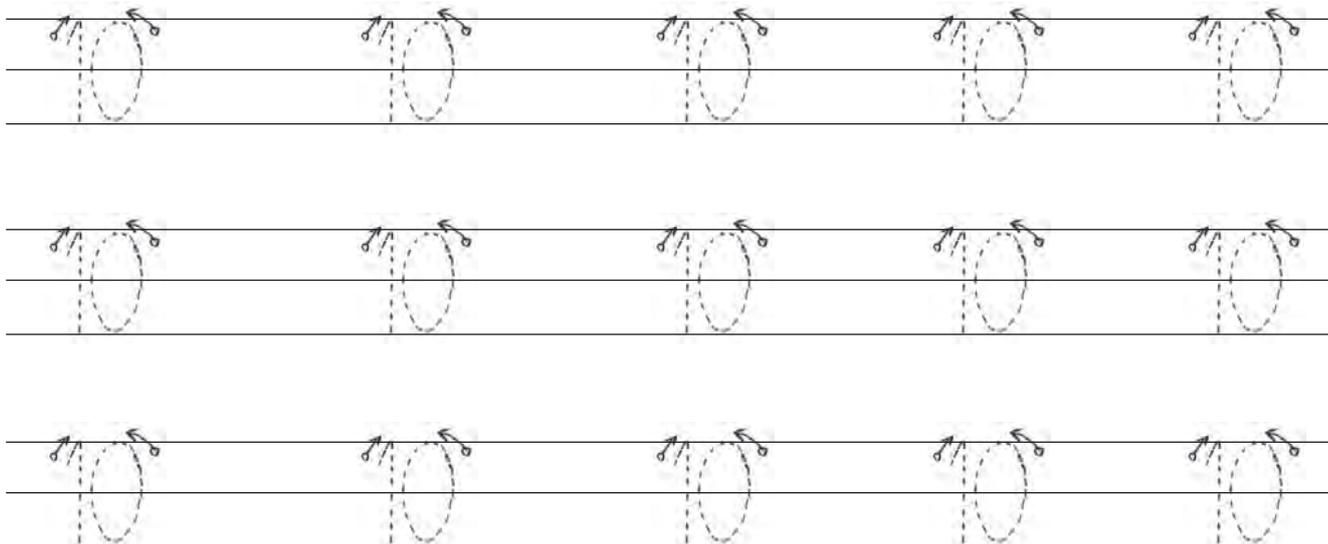


Teacher's Remark(s):

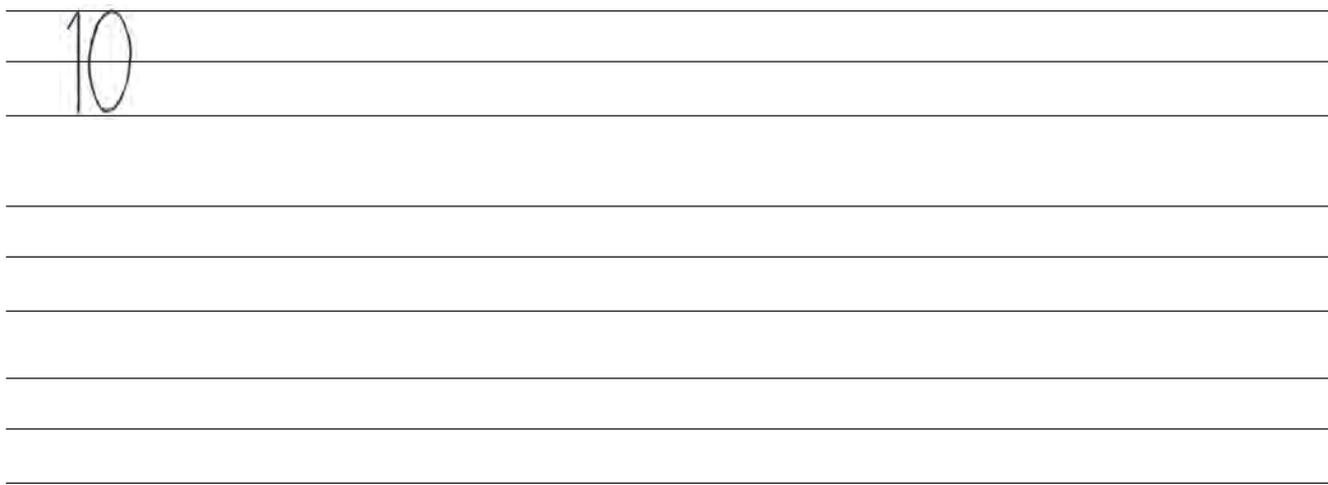
Teacher's Signature and Date:

**10** ○○○○○○○○○○○  
**ten circles** ○○

Trace:



Write:

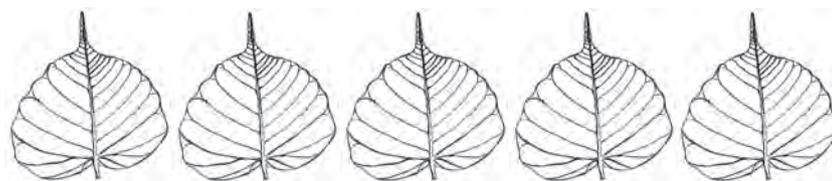


Teacher's Remark(s):

Teacher's Signature and Date:

Match the numbers to the pictures.

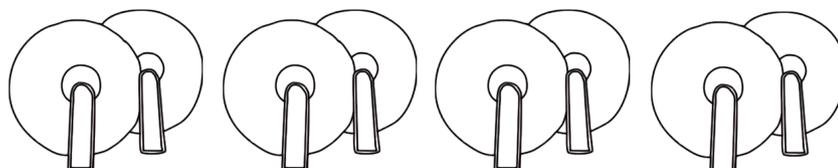
5



6



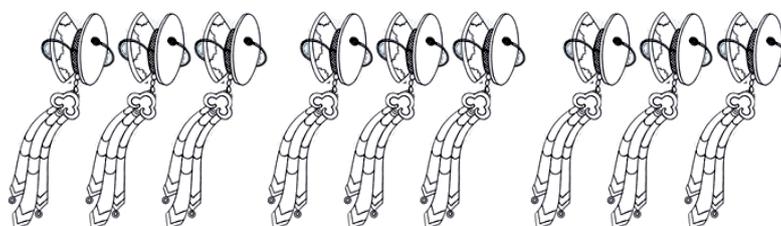
7



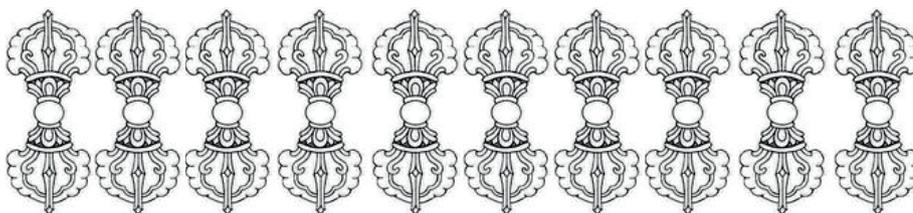
8



9



10



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Teacher's Remark(s):

Teacher's Signature and Date:

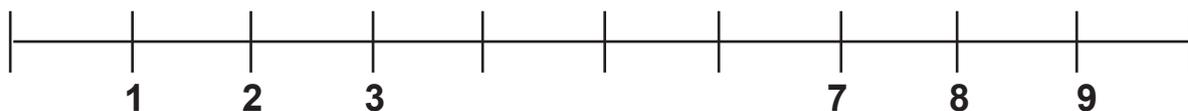
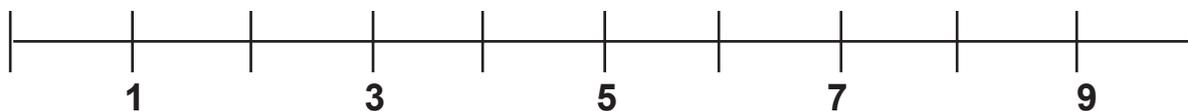
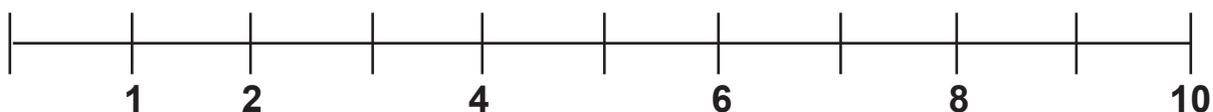
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Write the numbers from 1 to 10 as shown.

1    2    3    4    5    6    7    8    9    10

Write the missing numbers on the number lines.

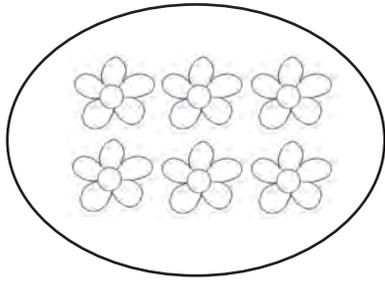


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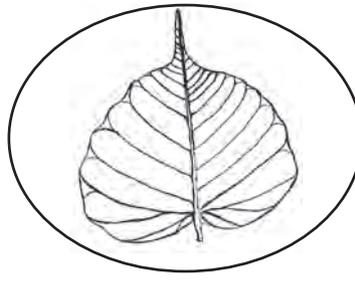
Teacher's Remark(s):

Teacher's Signature and Date:

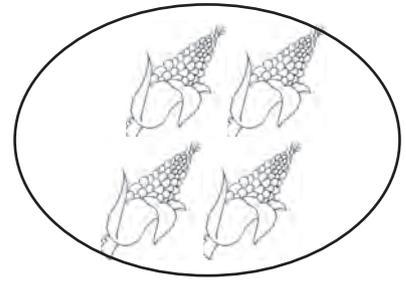
Write the numbers below each set.



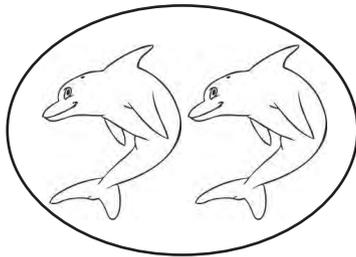
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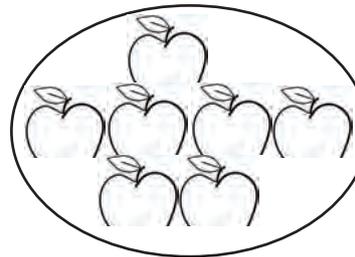
\_\_\_\_\_



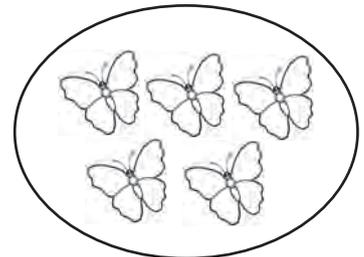
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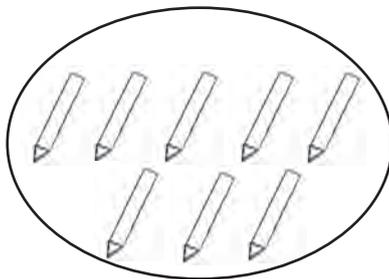
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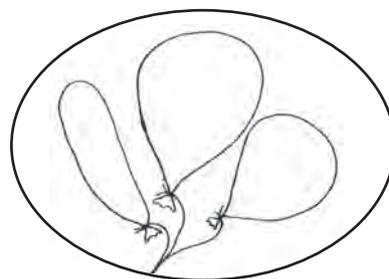
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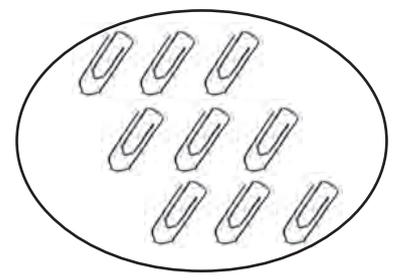
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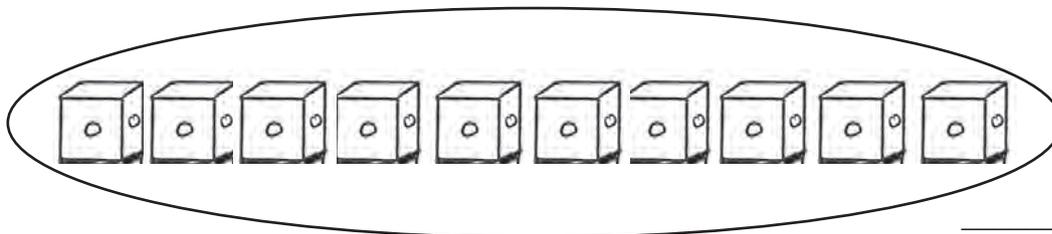
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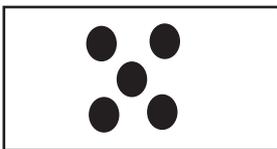


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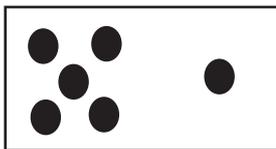
Teacher's Remark(s):

Teacher's Signature and Date:

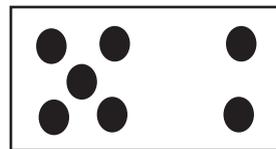
Count the dots in each box and write the number under each.



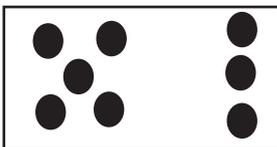
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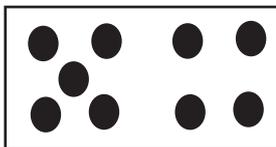
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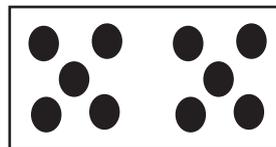
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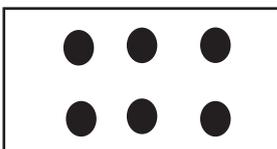
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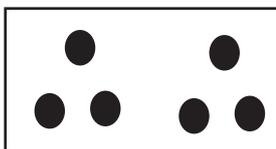
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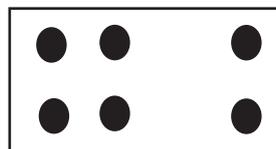
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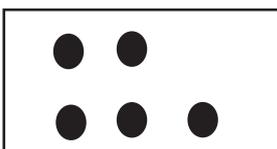
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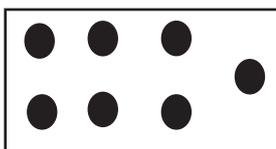
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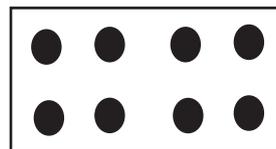
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Teacher's Remark(s):

Teacher's Signature and Date:

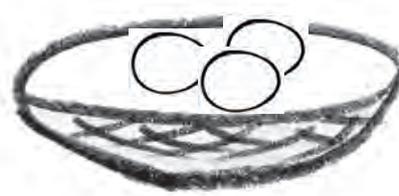
Write the number of eggs below each bangchung.



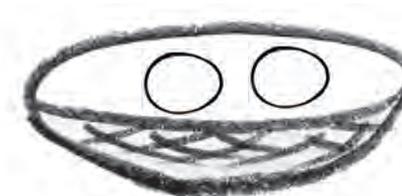
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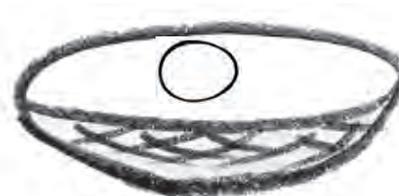
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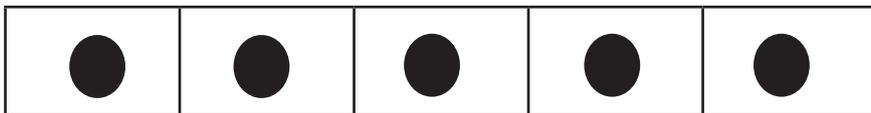


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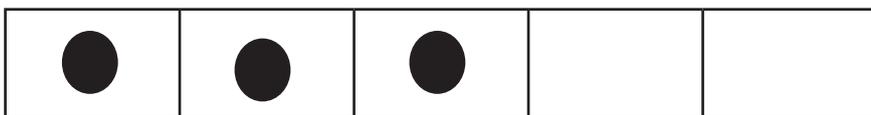
Write the number for the counters on the 5-frames.



\_\_\_\_\_



\_\_\_\_\_



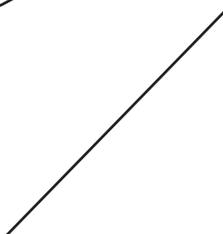
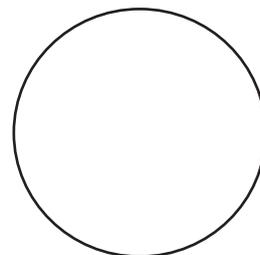
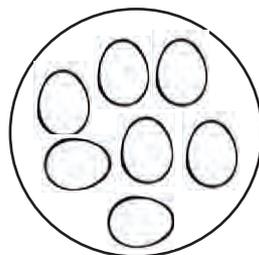
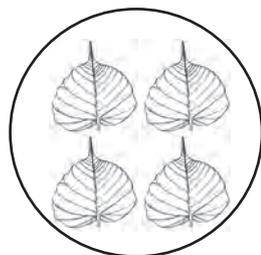
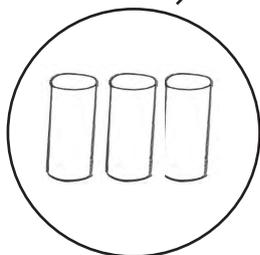
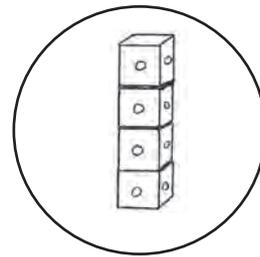
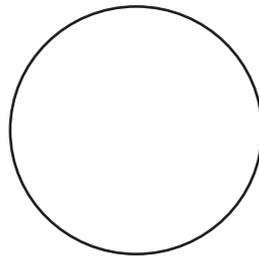
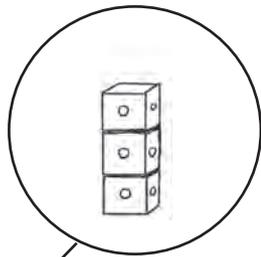
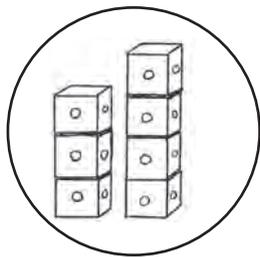
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Teacher's Remark(s):

Teacher's Signature and Date:

Match the sets having the same numbers of items.



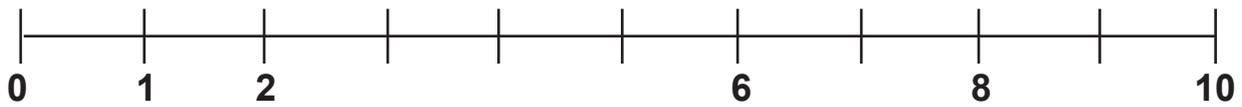
Write 0 on the number line.



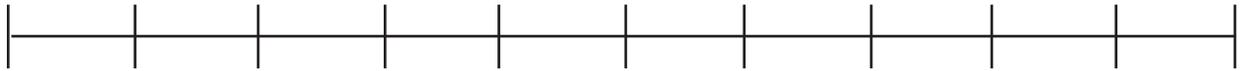
Teacher's Remark(s):

Teacher's Signature and Date:

Write the missing numbers on the number line.



Write the the numbers from 0 to 10 on the number line.



Trace to make a number line, and write the numbers.



Draw a number line.

---

Teacher's Remark(s):

Teacher's Signature and Date:

Each line of counters below shows the number 6 by using two colours of counters. Write the number of black and white counters in each line.

Example



5 and 1 is 6

Example



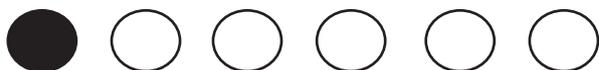
4 and 2 is 6



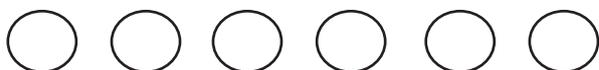
\_\_\_ and \_\_\_ is 6



\_\_\_ and \_\_\_ is 6



\_\_\_ and \_\_\_ is 6



\_\_\_ and \_\_\_ is 6

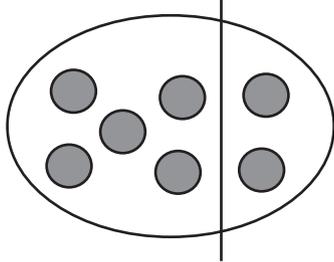
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Teacher's Remark(s):

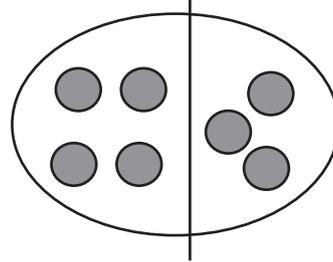
Teacher's Signature and Date:

Each group of counters below shows the number 7. The counters in each group are separated by a line. Write the numbers for the counters on each side of the line.

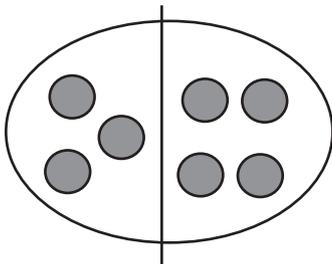
Example



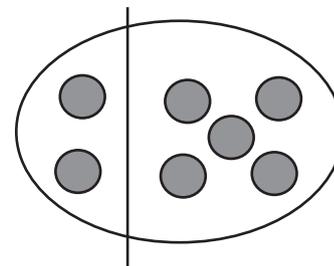
5 and 2 is 7



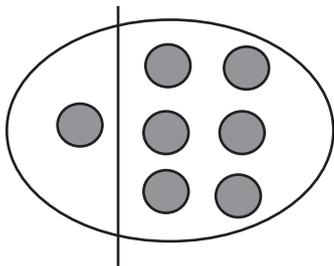
4 and 3 is 7



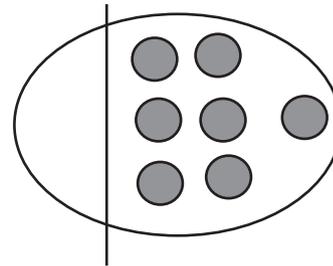
    and     is 7



    and     is 7



    and     is 7



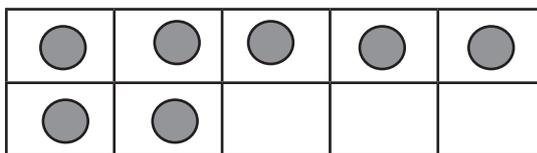
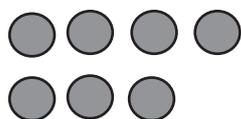
    and     is 7

Teacher's Remark(s):

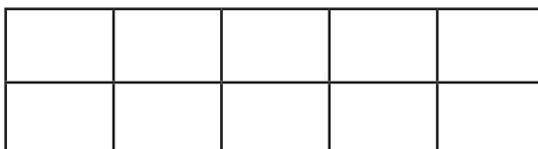
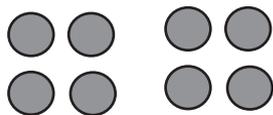
Teacher's Signature and Date:

Represent the counters on the 10-frames, and write the numbers.

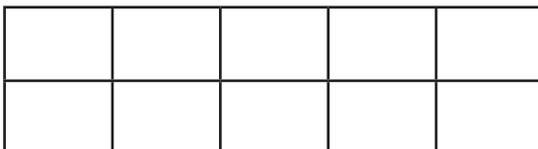
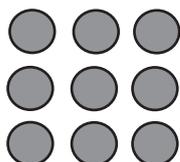
Example



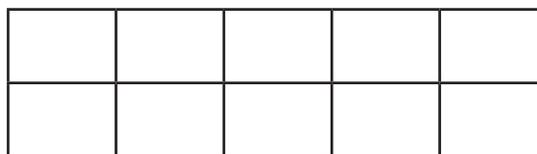
7



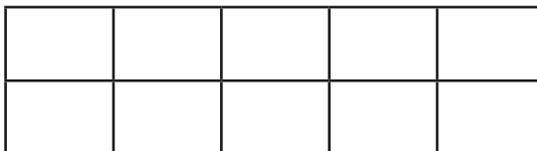
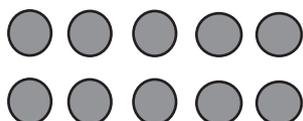
—



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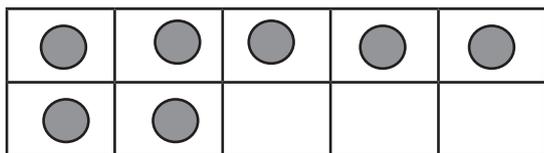


—

Teacher's Remark(s):

Teacher's Signature and Date:

The 10-frame below shows the number 7. Answer the questions that follow it.



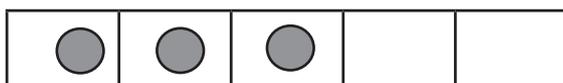
*Question:* By how much is 7 more than 5?

*Answer:* \_\_\_\_\_

*Question:* By how much is 7 less than 10?

*Answer:* \_\_\_\_\_

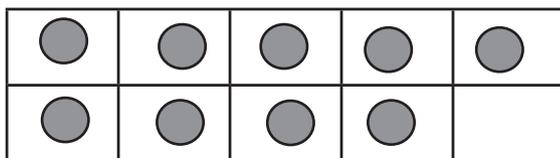
The 5-frame below shows the number 3. Answer the question that follow it.



*Question:* By how much is 3 less than 5?

*Answer:* \_\_\_\_\_

Answer the questions that follow the 10-frame below.



*Question:* What number does the above 10-frame show?

*Answer:* \_\_\_\_\_

*Question:* By how much is it less than 10?

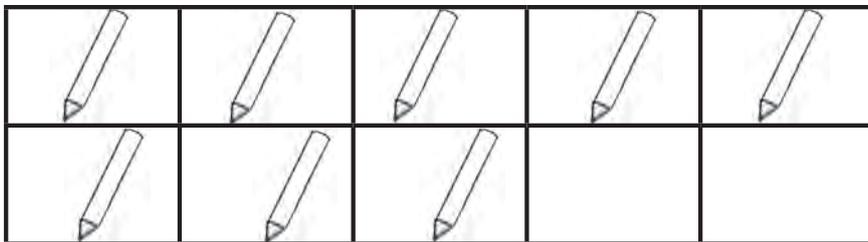
*Answer:* \_\_\_\_\_

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Teacher's Remark(s):

Teacher's Signature and Date:

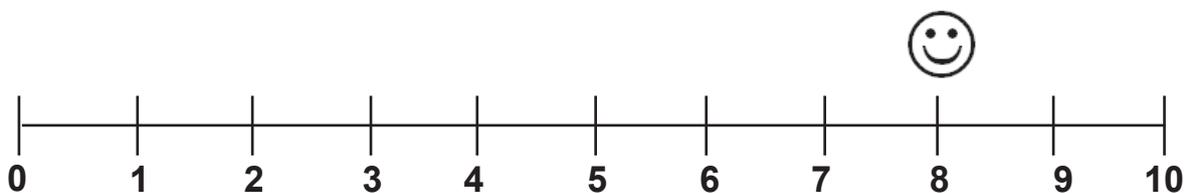
You have 8 pencils, as shown below.



*Question:* How many more do you need to have 10 pencils?

*Answer:* \_\_\_\_\_

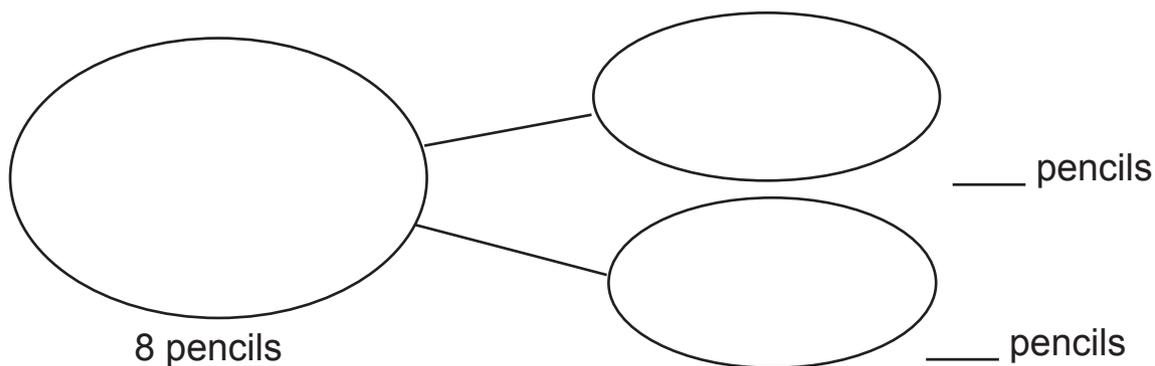
You are at number 8 on the number line, as shown.



*Question:* How much farther do you have to go to get to 10?

*Answer:* \_\_\_\_\_

Draw 8 pencils. Separate them into two parts by drawing.  
How many are in each part?



Teacher's Remark(s):

Teacher's Signature and Date:

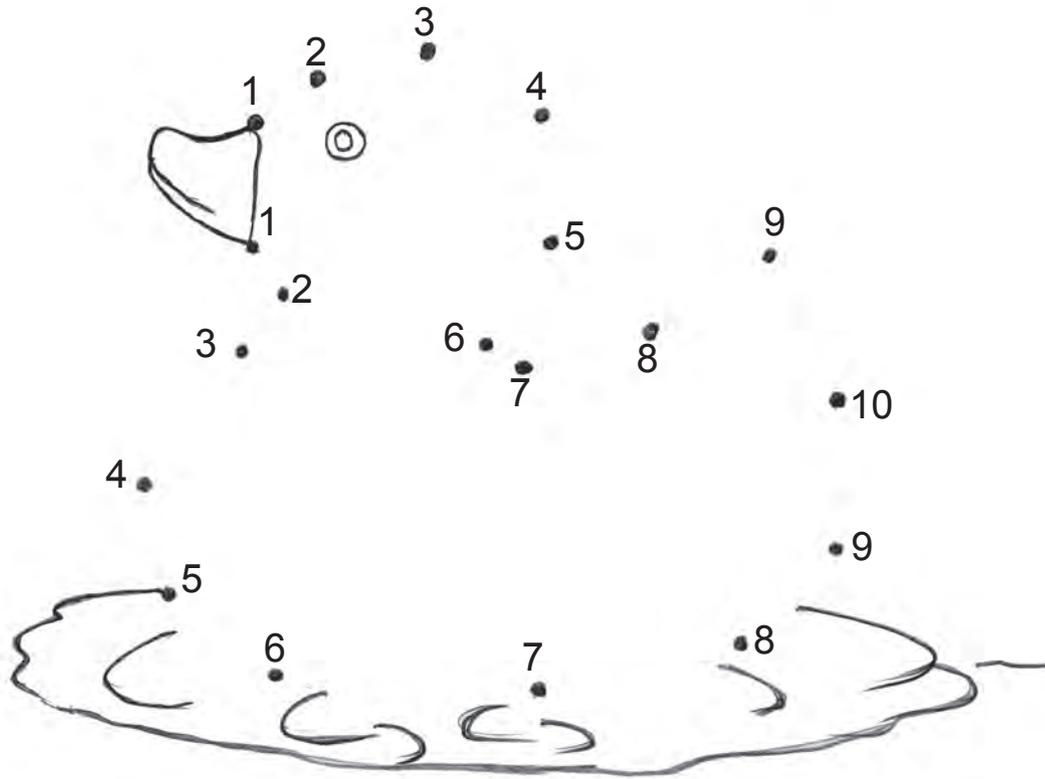
Write the numbers that come **before** the numbers below.

  3   4          7          3          10          1

Write the numbers that come **after** the numbers below.

5   6        8          0          9          3          7    

Join the dots as you move your pencil from 1 to 10. What have you drawn? Colour your drawing.



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Teacher's Remark(s):

Teacher's Signature and Date:

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Write about yourself using a number in each sentence.

### About Me

Example:

I have   1   mouth.

I have        nose.

I have        legs.

I have        brothers.

I have        sisters.

I have        cats at home.

I am        years old.

I have \_\_\_\_\_

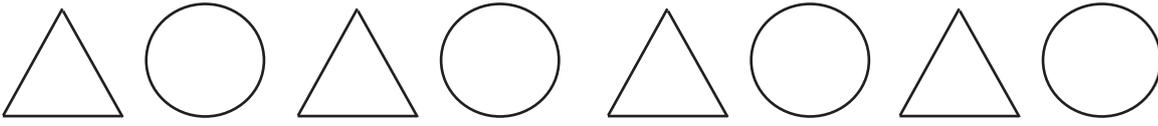
I have \_\_\_\_\_

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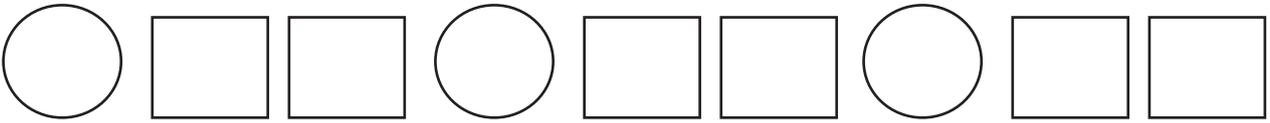
Teacher's Remark(s):

Teacher's Signature and Date:

Copy the shape patterns. Explain verbally why each is a shape pattern.



Copy here:



Copy here:



Copy here:

---

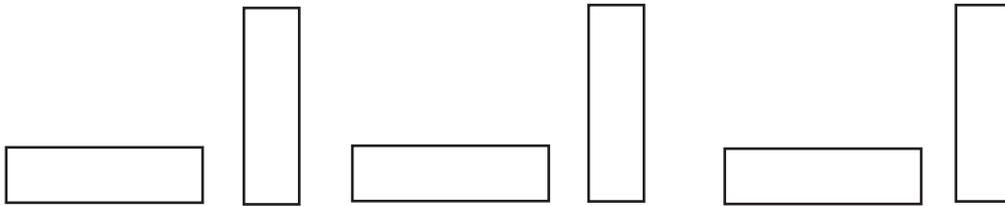
Teacher's Remark(s):

Teacher's Signature and Date:

Copy the position patterns. Explain verbally why each is a pattern.



Copy here:



Copy here:



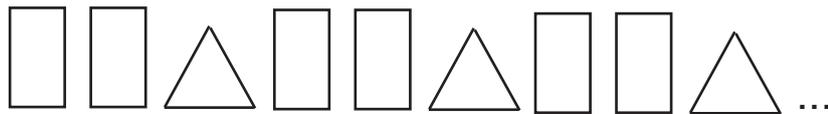
Copy here:

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Teacher's Remark(s):

Teacher's Signature and Date:

Extend the shape patterns.



Extend the letter patterns.

A B A B A B ...

A A B A A B A A B ...

Extend the number patterns.

1 2 1 2 1 2 1 2 ...

2 4 2 4 2 4 2 4 ...

3 5 5 3 5 5 3 5 5...

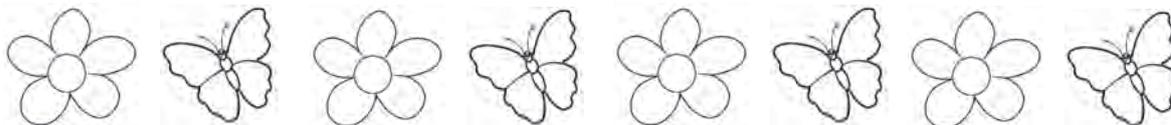
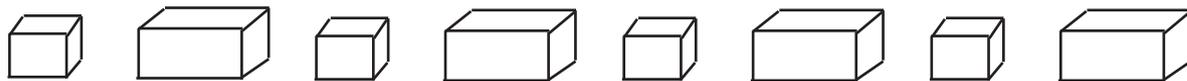
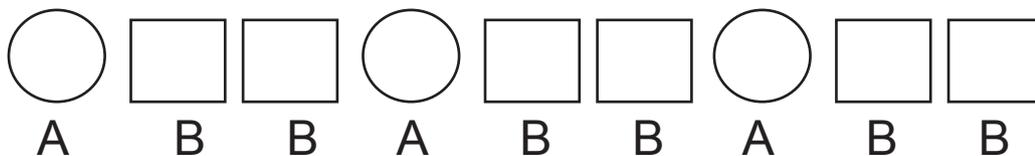
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Teacher's Remark(s):

Teacher's Signature and Date:

Translate the various shape patterns into letter codes using A and B. Tell which patterns have the same letter codes.

Example:

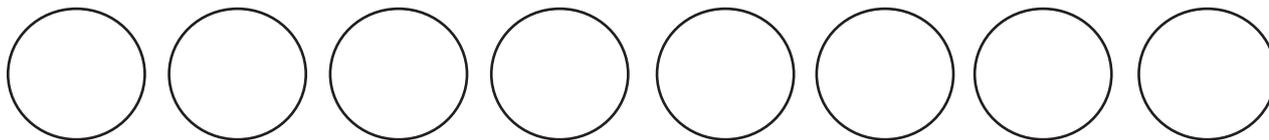



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Teacher's Remark(s):

Teacher's Signature and Date:

Make a colour pattern by colouring the circles below. Explain verbally how it is a pattern.



Make a shape pattern by using triangles ( $\triangle$ ) and circles ( $\circ$ ). Explain verbally how it is a pattern.

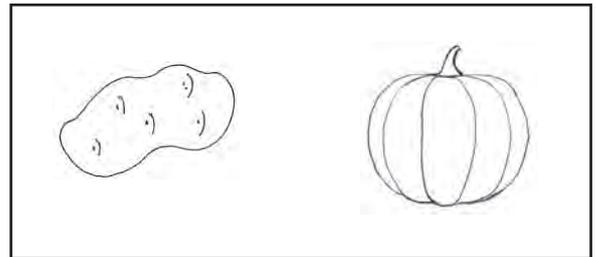
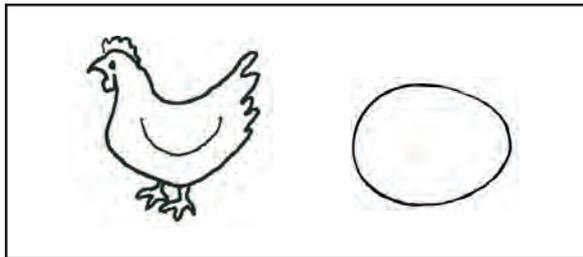
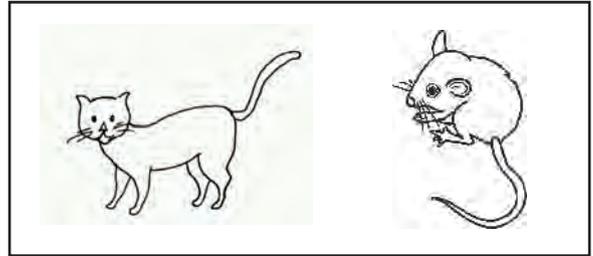
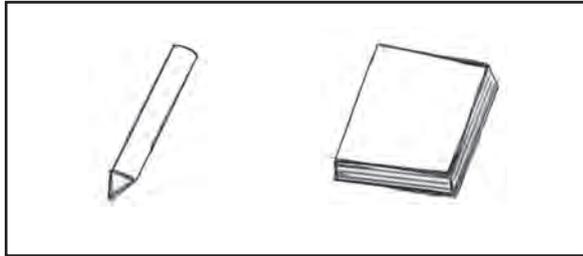
Make a shape pattern by drawing any shapes you like. Explain verbally how it is a pattern.

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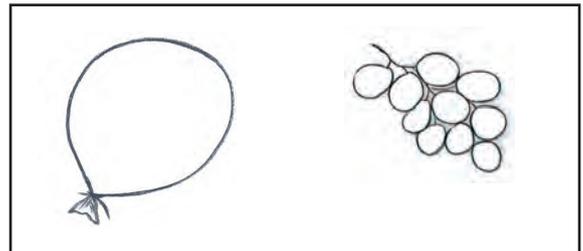
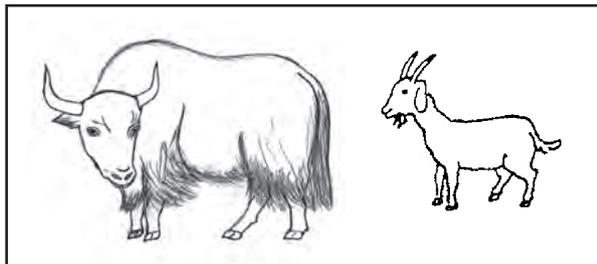
Teacher's Remark(s):

Teacher's Signature and Date:

Which one of the two objects in the box do you think would be **heavier**? Circle it.



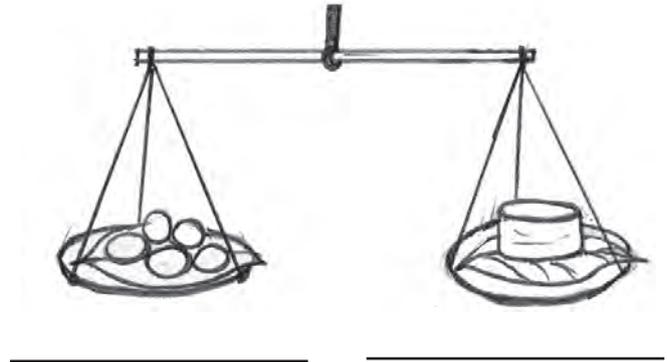
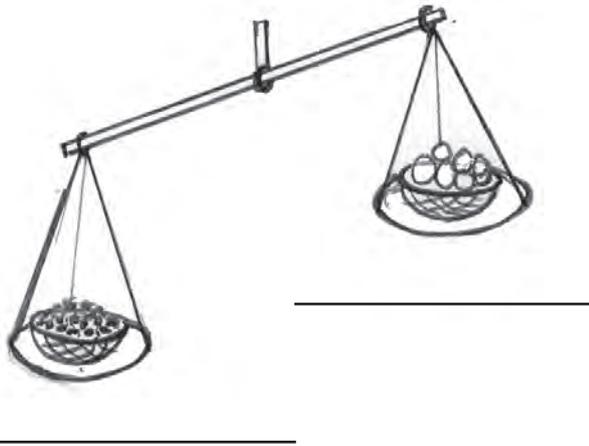
Which one of the two objects in the box do you think would be **lighter**? Circle it.



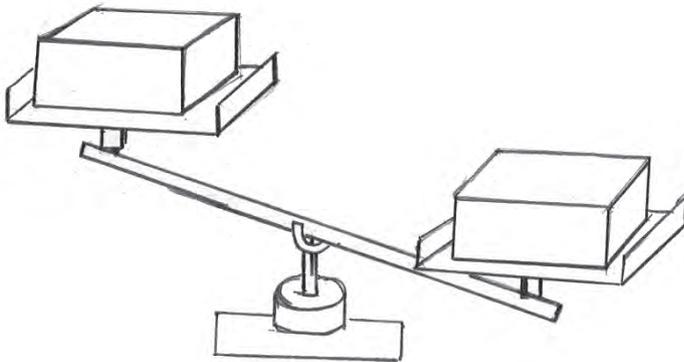
Teacher's Remark(s):

Teacher's Signature and Date:

Compare the two things on a pan balance, and write **lighter**, **heavier**, or **the same** under each.



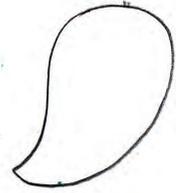
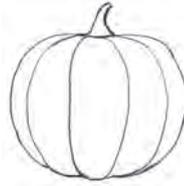
The two boxes on the pan balance are gifts for you. One box contains a teddy bear and the other a watch. Match the teddy bear and the watch to a box each. Explain your matching verbally.



Teacher's Remark(s):

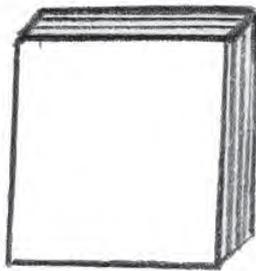
Teacher's Signature and Date:

Order the things in line from the **lightest** to the **heaviest** by drawing.



Draw in order here:

Colour the **heaviest** object green and the **lightest** object yellow.



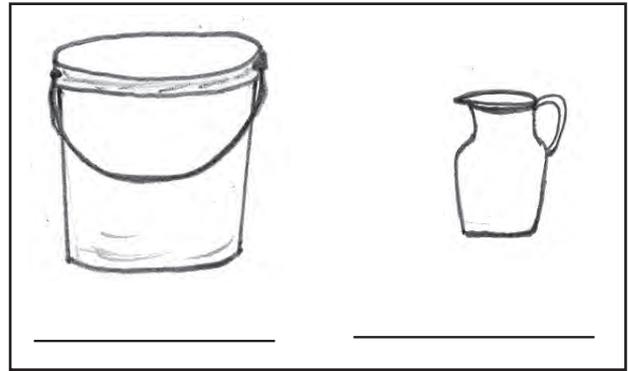
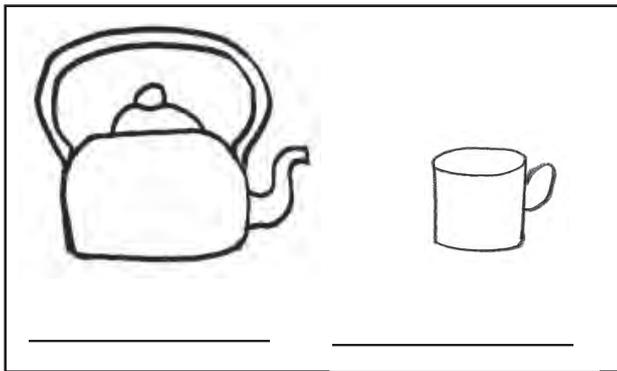
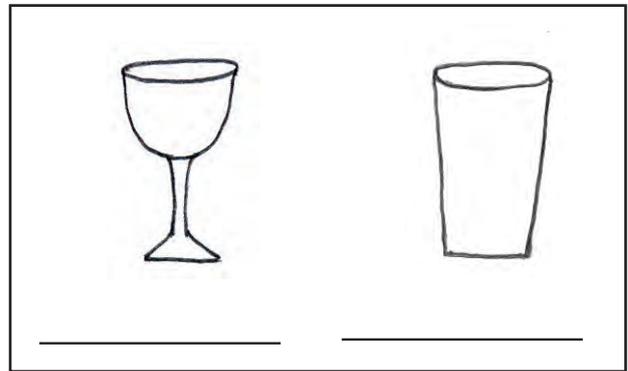
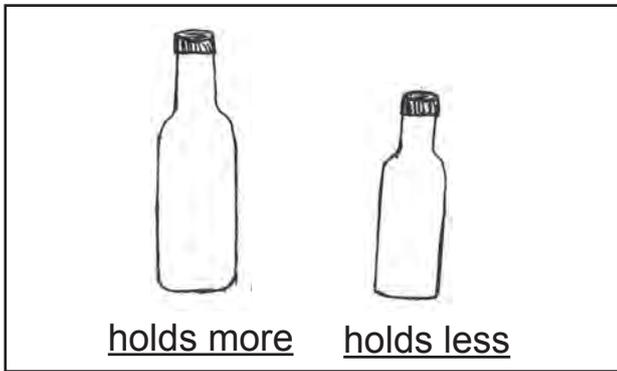
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Teacher's Remark(s):

Teacher's Signature and Date:

Compare the capacities of the pairs of containers, and write **holds more**, **holds less**, and **holds about the same** under each.

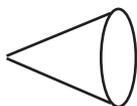
Example



Teacher's Remark(s):

Teacher's Signature and Date:

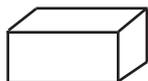
Match the shapes to their names.



cylinder

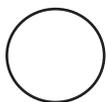


rectangular prism



cone

Match the shapes to their names.



rectangle

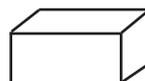
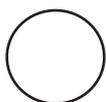


triangle



circle

Match the 2-D shapes to the 3-D shapes. Explain your matching verbally.



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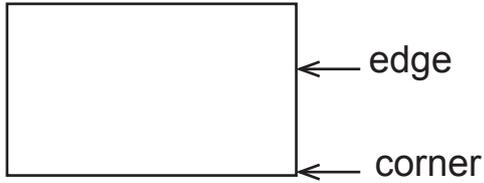
Teacher's Remark(s):

Teacher's Signature and Date:

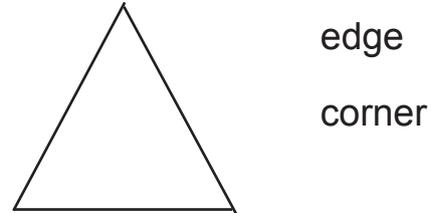
Match the names to the parts of the 2-D shapes using lines with an arrow head.

Example

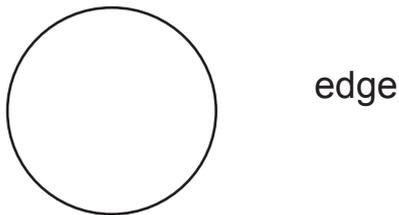
rectangle



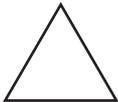
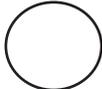
triangle



circle



Fill up the table below.

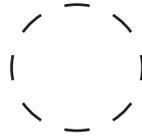
|   | How many edges? | How many corners? |
|---|-----------------|-------------------|
| Rectangle  |                 |                   |
| Triangle   |                 |                   |
| Circle     |                 |                   |

Teacher's Remark(s):

Teacher's Signature and Date:

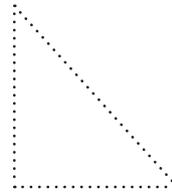
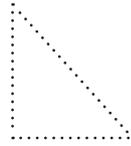
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Trace the circles.



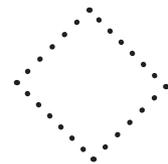
Draw 3 circles.

Trace the triangles.



Draw 4 triangles.

Trace the rectangles.



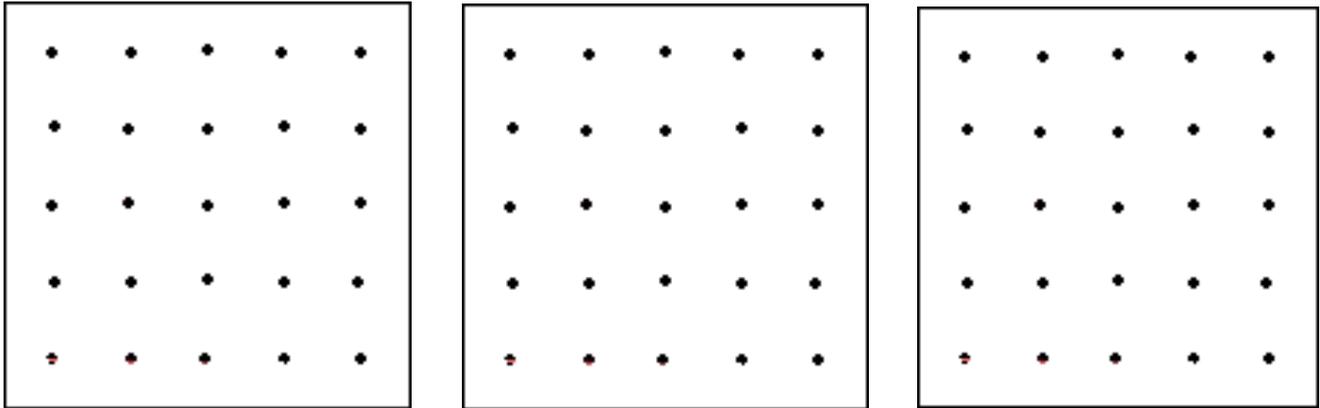
Draw 3 rectangles.

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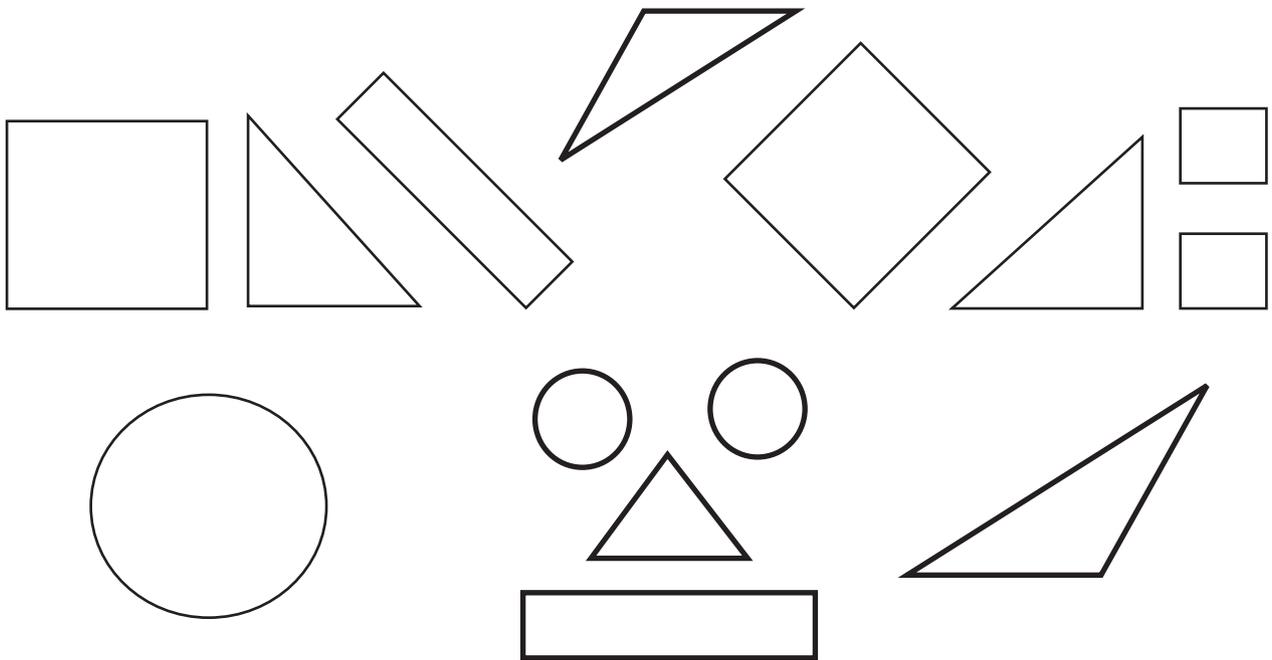
Teacher's Remark(s):

Teacher's Signature and Date:

Draw different triangles and rectangles by joining the dots.



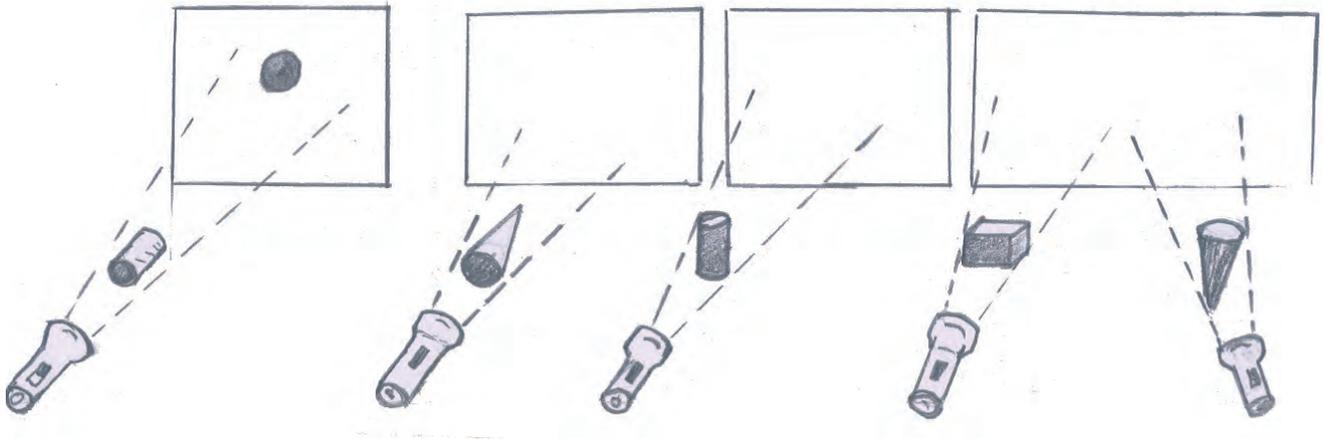
Colour all the **rectangles** brown, all the **triangles** orange, and all the **circles** purple.



Teacher's Remark(s):

Teacher's Signature and Date:

Draw the shadows on the wall.



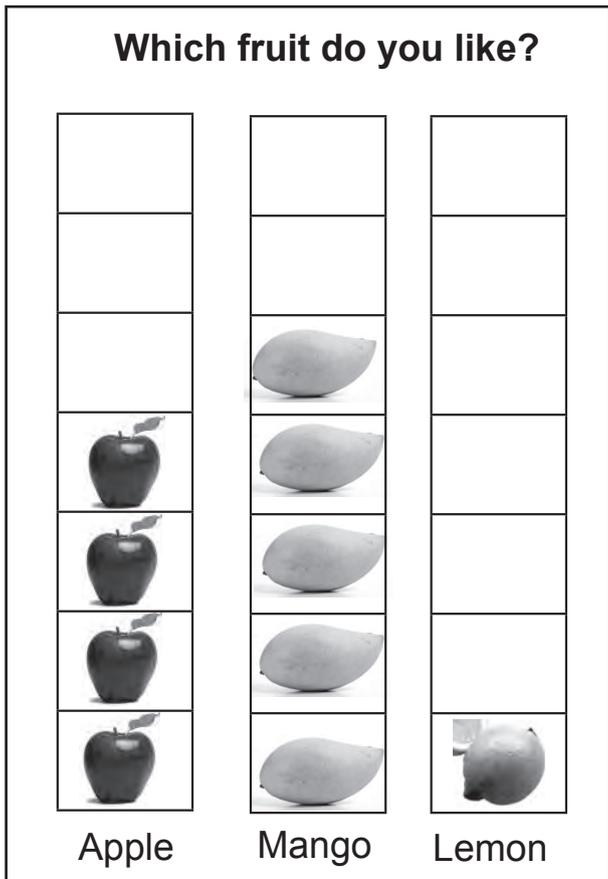
Draw pictures of animals, or houses, or anything you like using **triangles**, **rectangles** and **circles**.

---

Teacher's Remark(s):

Teacher's Signature and Date:

The favourite fruits of some children are shown in the picture graph.



Q: How many columns are there for this graph?

A: There are \_\_\_\_\_ columns.

Q: Which fruit is liked by most children?

A: Most children liked \_\_\_\_\_.

Q: Which fruit is liked by only 1 child?

A: \_\_\_\_\_.

Q: How many children liked apple?

A: \_\_\_\_\_ children liked apple.

Q: How many children in all have answered the question?

A: \_\_\_\_\_.

Q: Which of these 3 fruits do you like the most?

A: \_\_\_\_\_.

Teacher's Remark(s):

Teacher's Signature and Date:





Write the **ordinal numbers**.

1<sup>st</sup>

2<sup>nd</sup>

3<sup>rd</sup>

4<sup>th</sup>

5<sup>th</sup>

6<sup>th</sup>

7<sup>th</sup>

8<sup>th</sup>

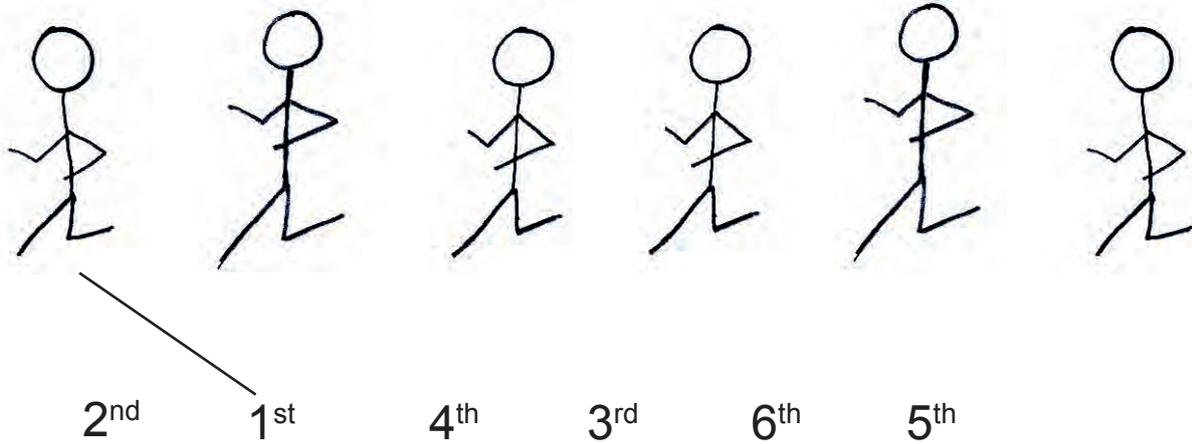
9<sup>th</sup>

10<sup>th</sup>

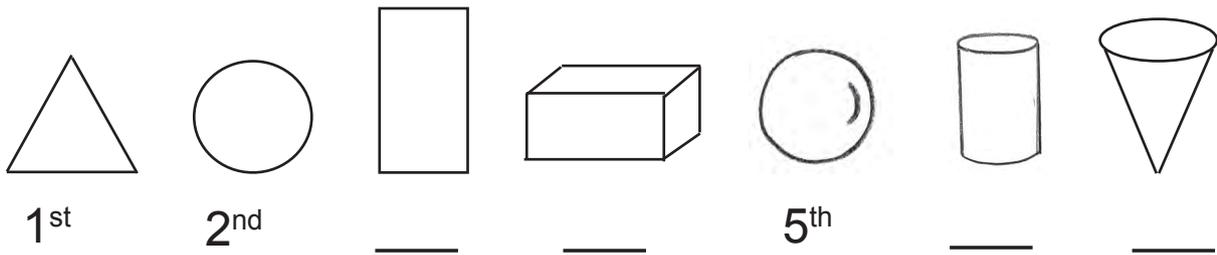
Teacher's Remark(s):

Teacher's Signature and Date:

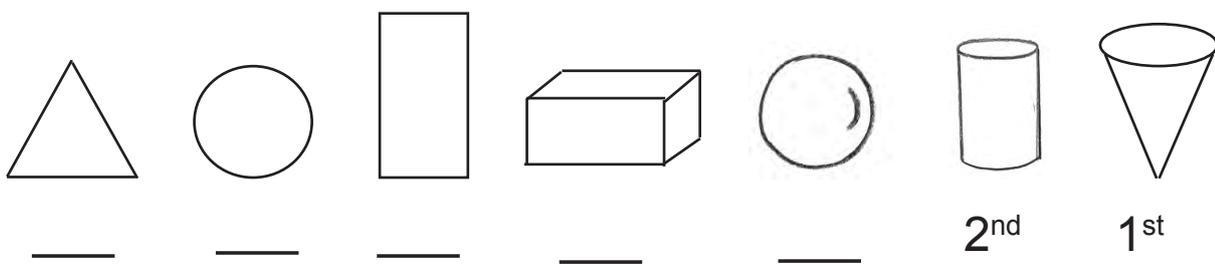
Match the **ordinal numbers** with the runners.



Write the missing **ordinal numbers** for the shapes below.



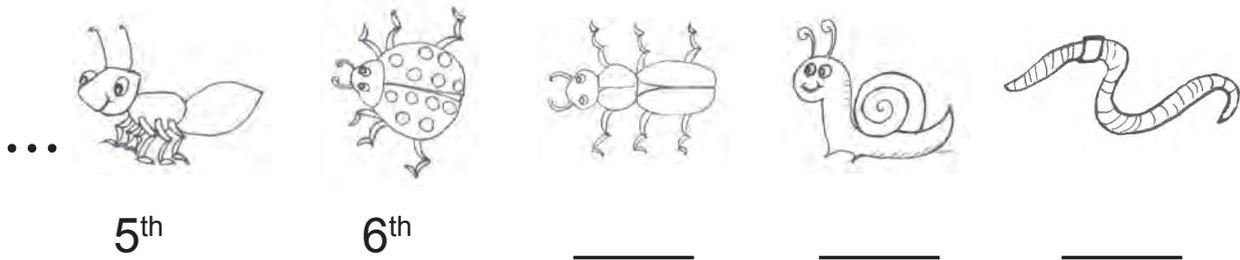
Write the missing **ordinal numbers** for the shapes below.



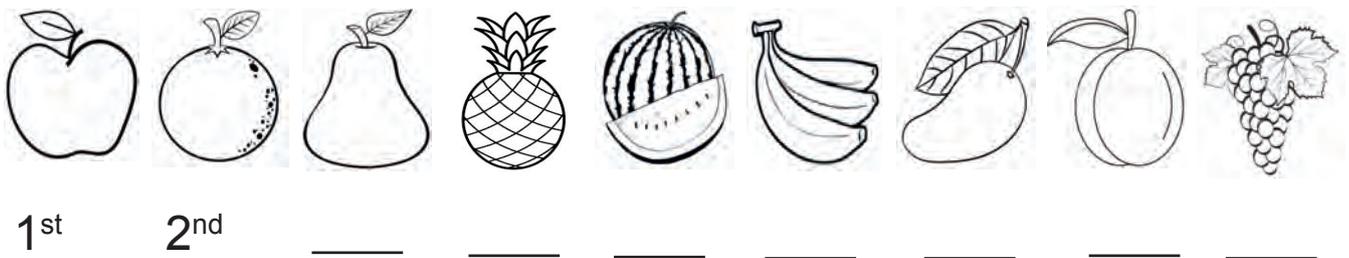
Teacher's Remark(s):

Teacher's Signature and Date:

Write the positions for the shapes below. The 5<sup>th</sup> and the 6<sup>th</sup> are indicated.



Write the **positions** for the fruits arranged from left to right. The 1<sup>st</sup> and the 2<sup>nd</sup> positions are already given.



Q: How many fruits are there?

A: There are \_\_\_\_\_ fruits.

Q: Which position is in the middle between 1<sup>st</sup> and 3<sup>rd</sup>?

A: The position in the middle between 1<sup>st</sup> and 3<sup>rd</sup> is \_\_\_\_\_.

Q: Which positions are between 6<sup>th</sup> and 9<sup>th</sup>?

A: The positions between 6<sup>th</sup> and 9<sup>th</sup> are \_\_\_\_\_.

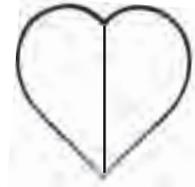
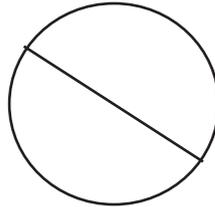
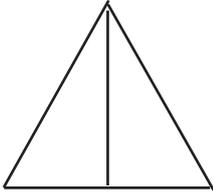
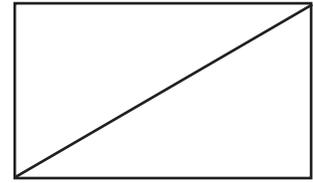
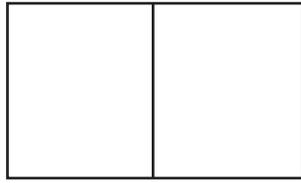
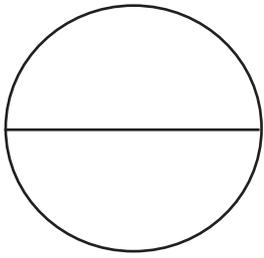
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Teacher's Remark(s):

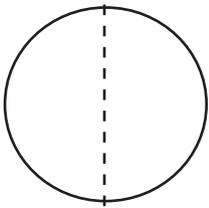
Teacher's Signature and Date:

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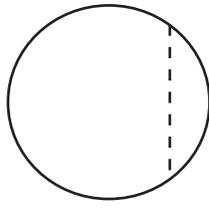
Colour a half of each shape.



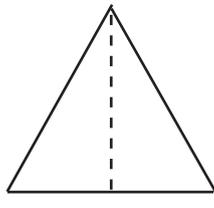
Is each shape divided into its two halves by the line -----?  
Write **Yes** or **No** under each shape.



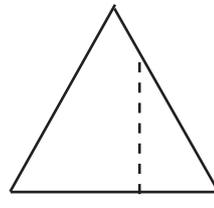
Yes



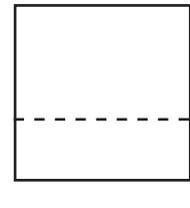
No



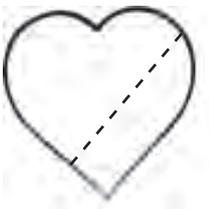
\_\_\_\_\_



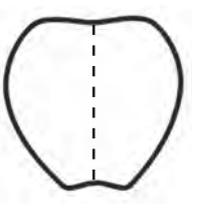
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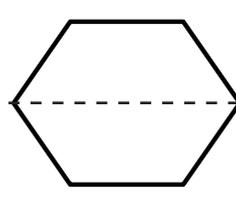
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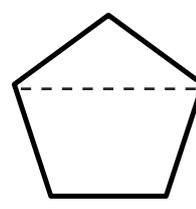
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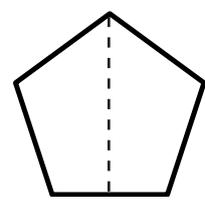
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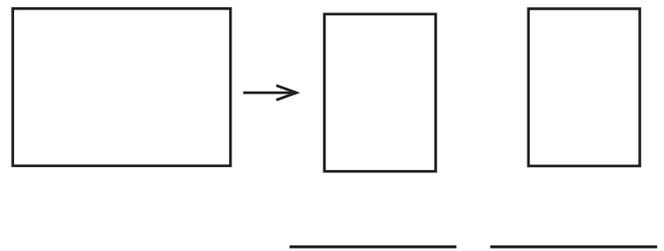
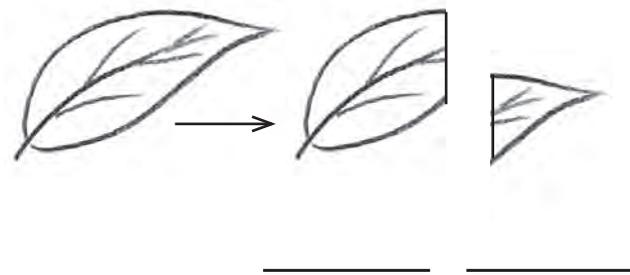
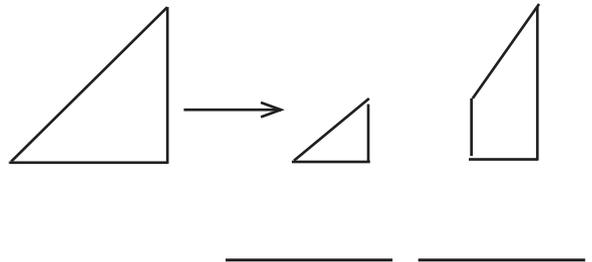
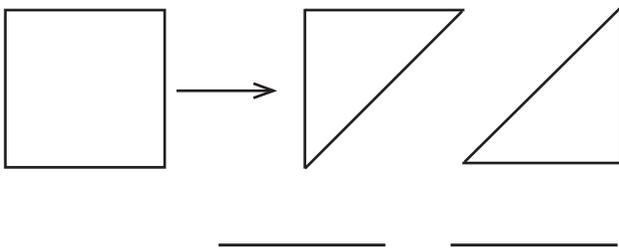
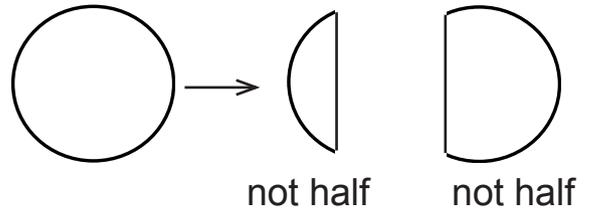
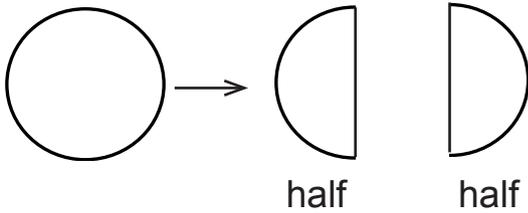
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Teacher's Remark(s):

Teacher's Signature and Date:

A whole shape is divided into two parts. Write **half**, or **not half** under each of the two parts.

Example



Teacher's Remark(s):

Teacher's Signature and Date:



Numerical cards for 1 to 5

1

2

3

4

5



5-frames

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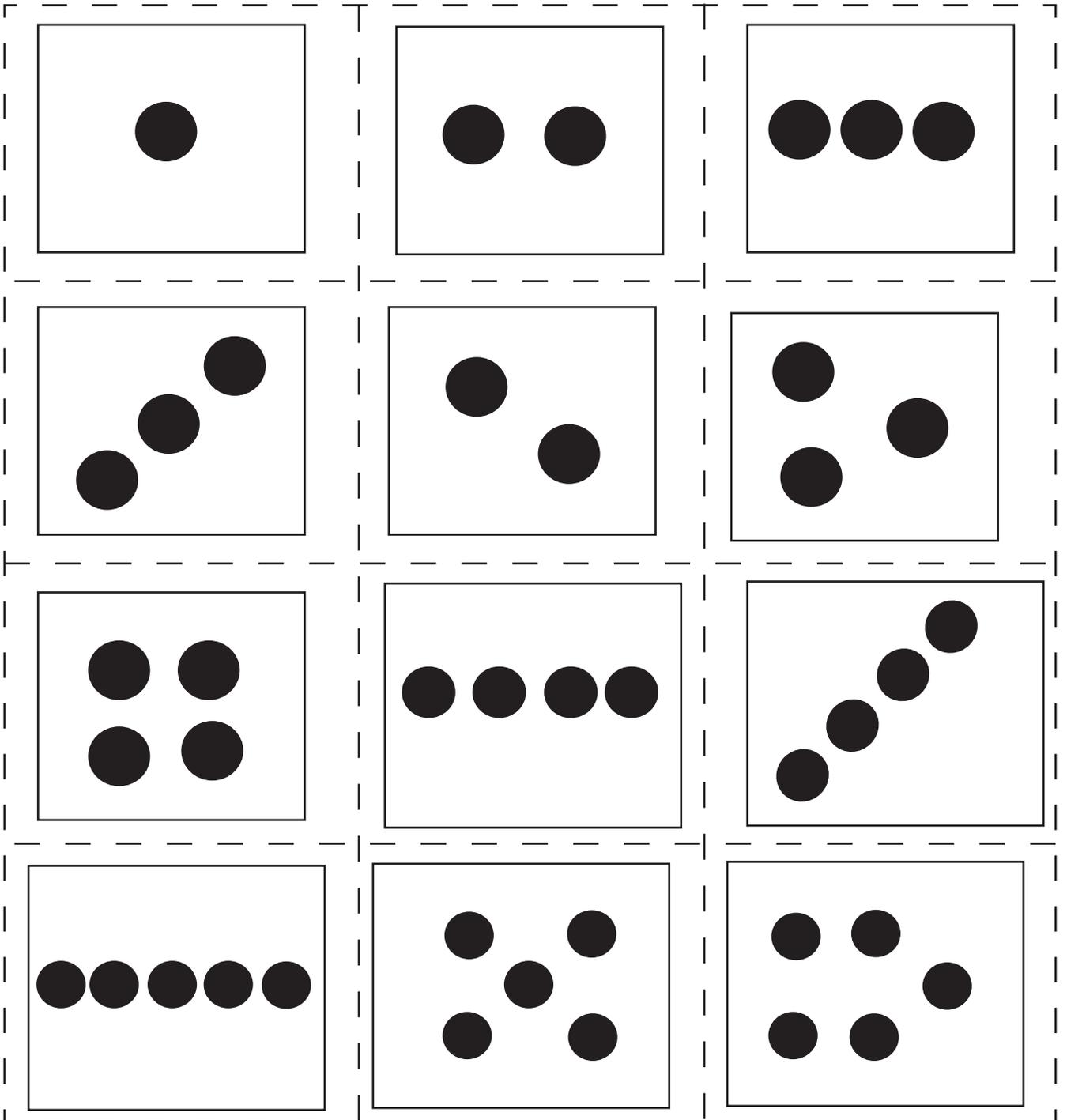
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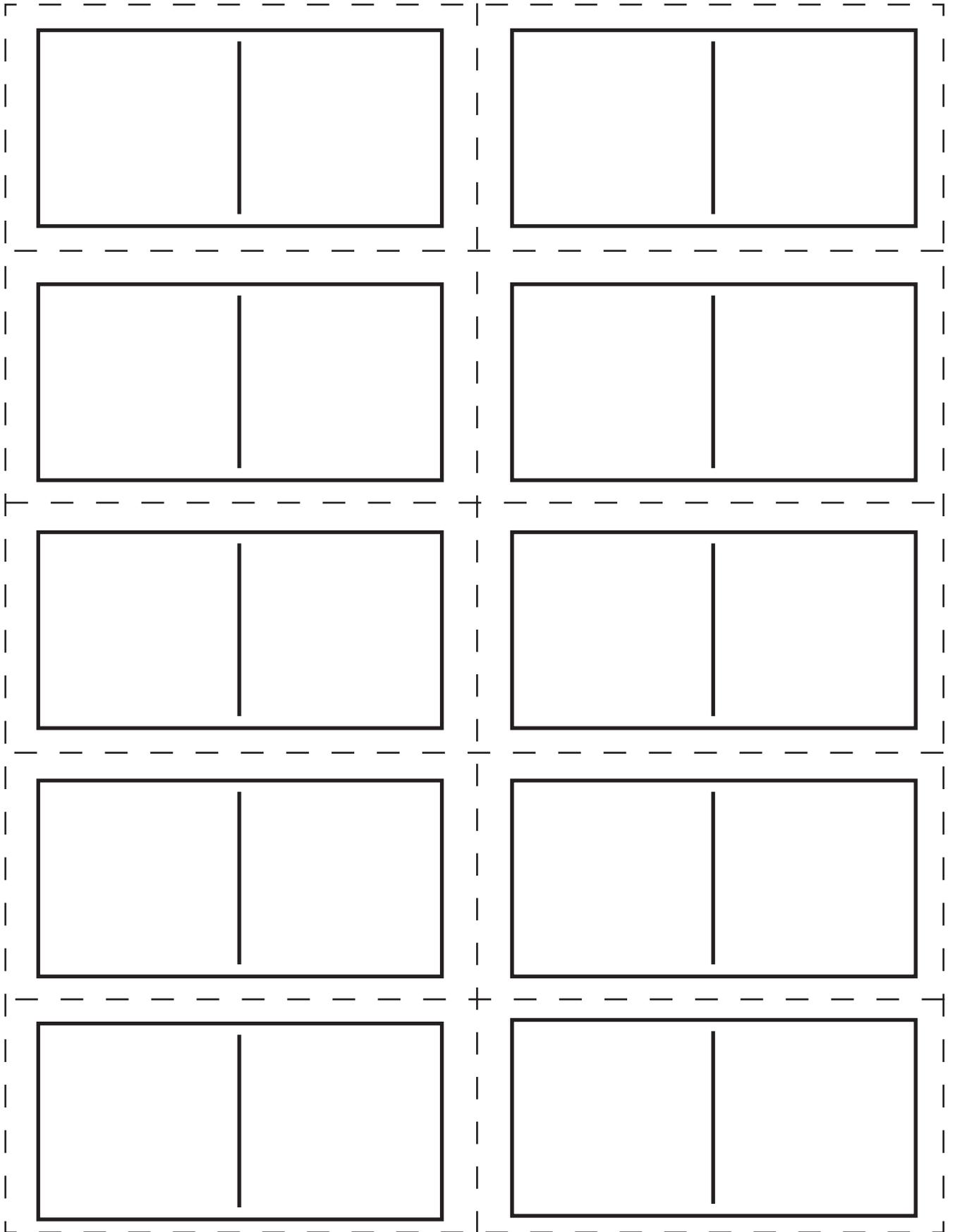


Dot cards





Empty domino cards





Numeral cards for numbers 6 to 10.

6

7

8

9

10



10-frames

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2-column graphing mat.

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Labels: \_\_\_\_\_

3-column graphing mat.

Title: \_\_\_\_\_

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Labels: \_\_\_\_\_

6-column graphing mat.

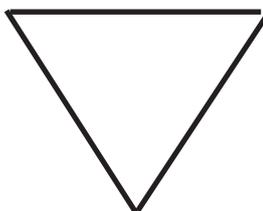
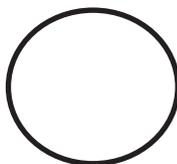
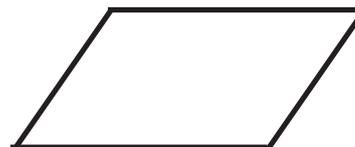
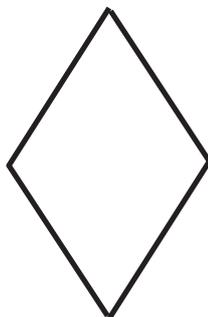
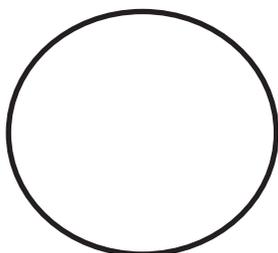
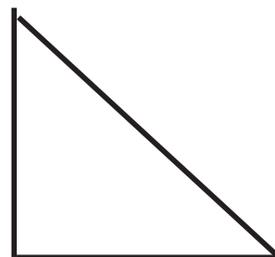
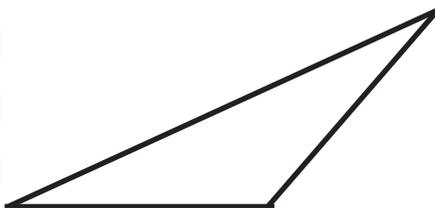
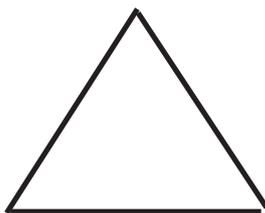
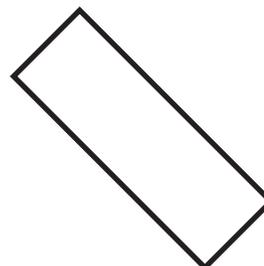
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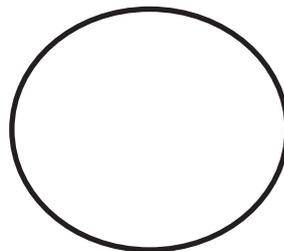
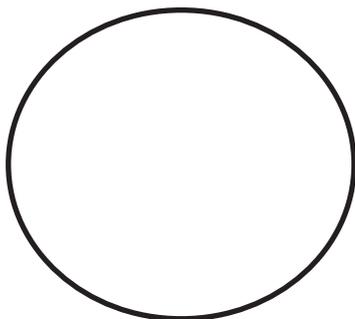
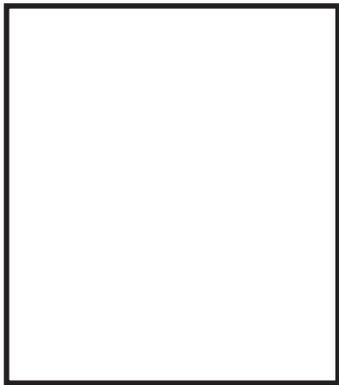
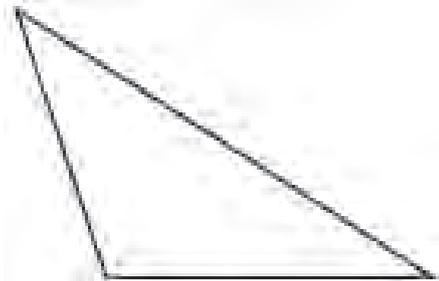
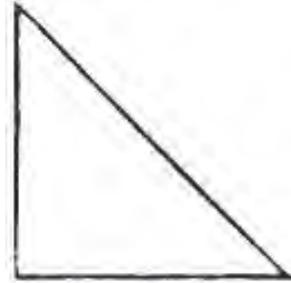
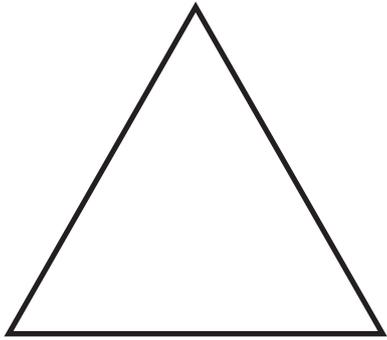


2-D Shapes for sorting.





2-D Shapes



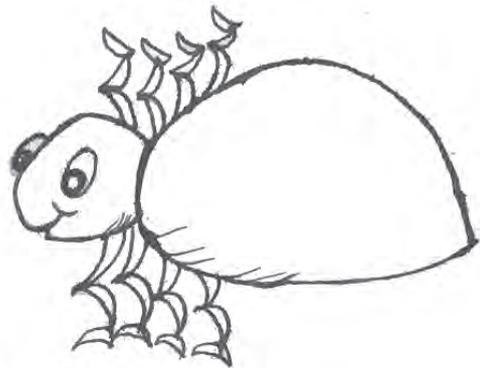
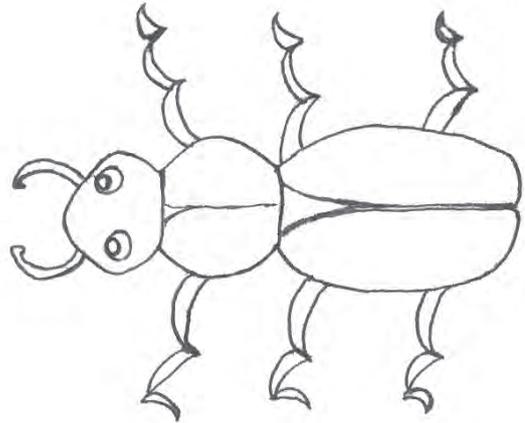
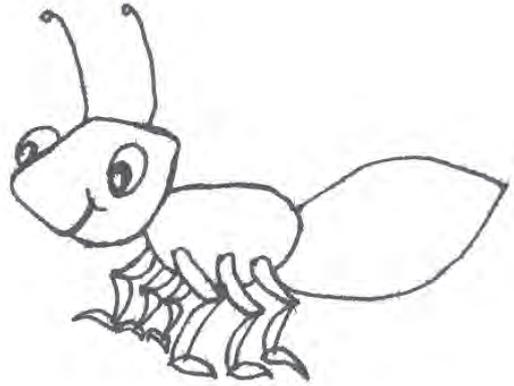
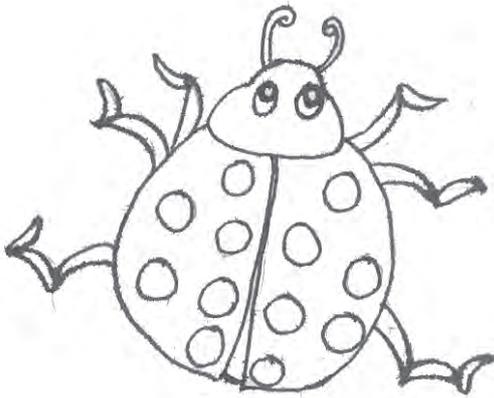


Ordinal Number cards.



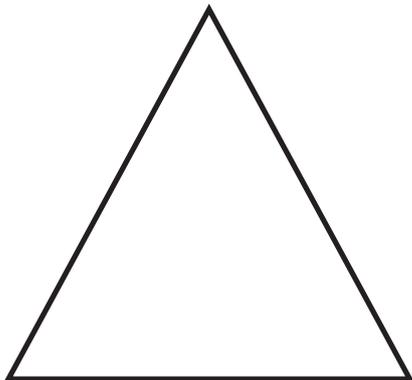
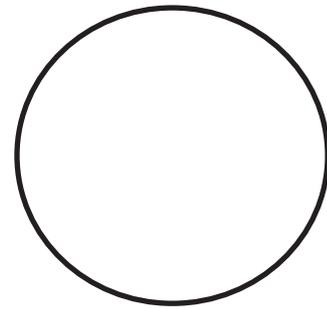
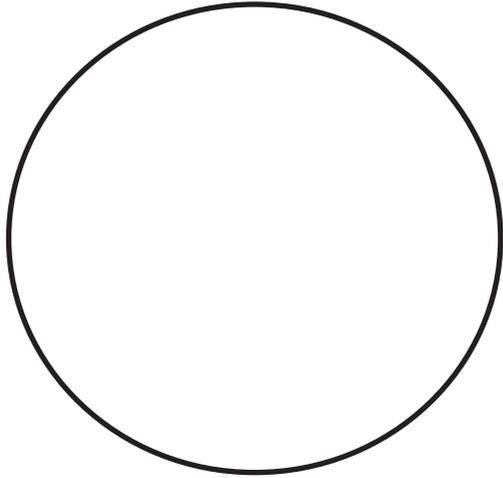


Insects



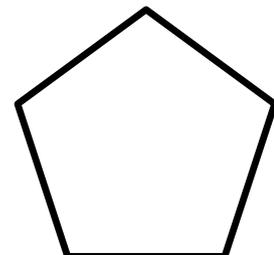
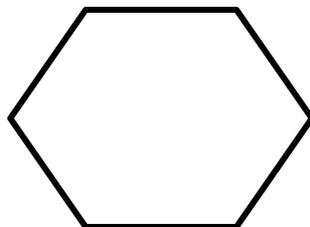
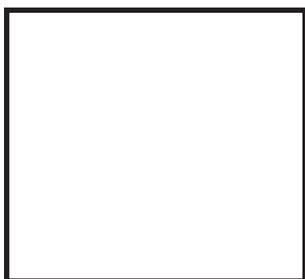
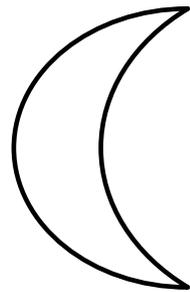
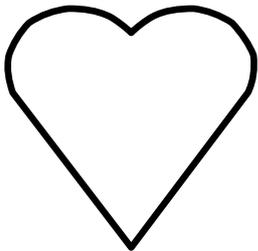
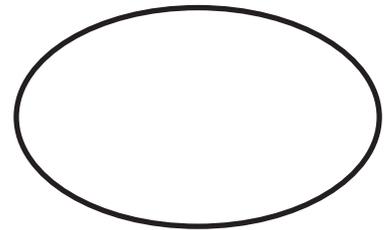
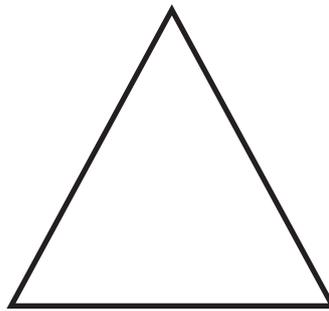
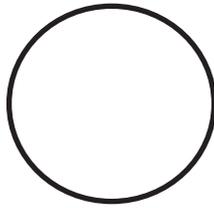
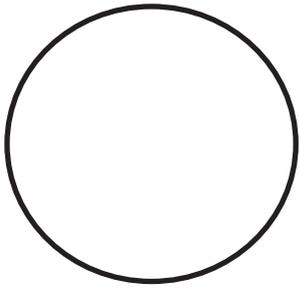


2-D Shapes.





2-D Shapes.













## Summative Assessment Recording Sheet (For Class PP)

Name of the Student: \_\_\_\_\_ Roll no.: \_\_\_\_\_ Section: \_\_\_\_\_

### CHAPTER 3 LENGTH

**Interview-based Performance Task** (Please refer the Introduction to the Teacher's Guide for Class PP on page \_\_ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts  | Key concepts and skills to look for  |
|---|--|
| <p><b>Task 1</b></p> <p>Present the student two objects and ask: <b>Which one do you think is longer? Show how you know. If this one is longer, then which is the shorter one?</b></p> <p>Present the student with a ball of string and scissors. Have the student cut a piece of string that is shorter than, longer than, the same length as a marker pen. Then ask: <b>Put the strings in order from the shortest to the longest (or longest to shortest).</b></p> | <p><i>The student is able to:</i></p> <ul style="list-style-type: none"><li>- Predict/estimate and compare lengths of two objects using terms like <i>longer</i> and <i>shorter</i>.</li><li>- Create an item that is longer than, shorter than, and the same length as a given one.</li><li>- Order items in order of length.</li></ul> |
| <p><b>Comments and Mark:</b></p><br><br><br><br><br><br><br><br><br><br><p><b>Teacher's Signature and Date:</b></p>   |  |

### Summary of the Summative Assessment for Chapter 3

Total CA mark from Chapter 3 (Task 1: Mark out of 10): \_\_\_\_\_

#### Overall remarks on the student

Strengths:

Areas of Need:

Follow up Steps:

## Summative Assessment Recording Sheet (For Class PP)

Student Name: \_\_\_\_\_ Roll no.: \_\_\_\_\_ Section: \_\_\_\_\_

### CHAPTER 4 3-D SHAPES

**Interview-based Performance Task** (Please refer the Introduction to the Teacher's Guide for Class PP on page \_\_\_ for the marking scheme while using Interview-based Performance Task.)

| Task and Interview prompts   | Key concepts and skills to look for  |
|--|--|
| <p><b>Task 1</b><br/>                     Present the student a collection of 3-D shapes comprising of 3-D geometric shapes and other common objects like cans, balls, marbles etc. Ask the student to pick up a shape and describe it: <b>Tell anything you can about this shape.</b> Pick up and set aside at least three shapes of the same type (e.g. three rectangular prisms). Ask: <b>How are these shapes the same? What do we call this group of 3-D shapes? Can you find another rectangular prism in the larger group?</b> Repeat for other groups of 3-D shapes.<br/>                     Have the student sort the collection into two groups. <b>I want you to sort the objects into two groups.</b> After that is done, ask: <b>What is same about all the objects that are in this group?</b><br/>                     Ask the student to build a tower using the 3-D objects. Ask: <b>Why did you use this block at the bottom. What will happen if you use a sphere as your base?</b> Etc.<br/>                     Pick up a 3-D shape, say a cone, and ask: <b>Show me the corner on this shape. How many corners does this shape have? Show me the flat face on this shape.</b> Repeat this for a few other shapes.</p> | <p><i>The student is able to :</i></p> <ul style="list-style-type: none"> <li>- Identify and describe 3-D shapes.</li> <li>- Compare and describe the similarities and difference between two 3-D shapes.</li> <li>- Sort the 3-D shape and describe the sorting rule.</li> <li>- Determine if a 3-D shape will stack or roll.</li> <li>- Identify the faces, corners, and edges on the 3-D shapes.</li> </ul> |
| <p><b>Comments and Mark:</b></p><br><br><br><br><p><b>Teacher's Signature and Date:</b></p>  |  |

#### Summary of the Summative Assessment for Chapter 4

Total CA mark from Chapter 4 (Task 1: Mark out of 10): \_\_\_\_\_

#### Overall remarks on the student

Strengths:

Areas of Need:

Follow up Steps:



**Task 2**

Present the student with a 10-frame and a collection of counters. Have the student represent various numbers from 6 to 10 on the 10-frame, using the counters, and ask them to compare the number to both 5 and 10. For example, **Show me number 7 on the 10-frame. Is 7 bigger than 5? By how much is 7 bigger than 5? How do you know? Is 7 less than 10? By how much is 7 less than 10? How do you know?** Ask similar questions with other numbers.

*The student is able to:*

- Represent number to 10 on 10-frame.
- Compare a number from 6 to 9 to both 5 and 10.
- Tell by how much a number of more than 5 or less than 10, and describe how.

**Comments and Mark:**

**Teacher's Signature and Date:**

**Summary of the Summative Assessment for Chapter 5**

Total CA mark from Chapter 5 (Task 1 and Task 2: Mark out of 20): \_\_\_\_\_

**Overall remarks on the student**

Strengths:

Areas of Need:

Follow up Steps:



## Summative Assessment Recording Sheet (For Class PP)

Student Name: \_\_\_\_\_ Roll no.: \_\_\_\_\_ Section: \_\_\_\_\_

### CHAPTER 7 REPEATING PATTERNS

**Interview-based Performance Task** (Please refer the Introduction to the Teacher's Guide for Class PP on page \_\_ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts  | Key concepts and skills to look for   |
|---|---|
| <p><b>Task 1</b></p> <p>Have a collection of cubes in more than 4 colours, and a collection of two different objects (e.g. pebbles and leaves, or two different shapes)</p> <p>Present the student with an ABB colour pattern using snap cubes. Ask: <b>Is this a pattern? Why or how is it a pattern? What is the part that is repeating in this pattern? Can you extend this pattern using three more cubes?</b> Have the student extend the pattern by making him or her accessible to a collection of cubes in different colours.</p> <p>Ask the student to make a similar pattern using cubes of two different colours other than the ones already used in the above pattern. After that have him or her describe how the two patterns are similar.</p> <p>Then ask the student to make a similar pattern using pebbles and leaves, by presenting these materials to him or her. Ask the student to describe how the last two patterns are similar and how they are different.</p> | <p><i>The student is able to :</i></p> <ul style="list-style-type: none"> <li>- Identify a simple repeating pattern.</li> <li>- Identify and describe the repeating part (or the core) of a pattern.</li> <li>- Extend a repeating pattern.</li> <li>- Translate a colour pattern into another colour pattern.</li> <li>- Translate a colour pattern into other patterns (using the same pattern structure).</li> <li>- Describe the similarities and difference between two different patterns.</li> </ul> |
| <p><b>Comments and Mark:</b></p><br><br><br><br><br><br><br><br><br><br><p><b>Teacher's Signature and Date:</b></p>   |   |

| Summary of the Summative Assessment for Chapter 7  |
|--|
| <p>Total CA mark from Chapter 7(Task 1: Mark out of 10): _____</p>   |
| <p style="text-align: center;"><b>Overall remarks on the student</b></p> <p>Strengths:</p> <p>Areas of Need:</p> <p>Follow up Steps:</p> |





## Summative Assessment Recording Sheet (For Class PP)

Student Name: \_\_\_\_\_ Roll no.: \_\_\_\_\_ Section: \_\_\_\_\_

### CHAPTER 9 2-D SHAPES

**Interview-based Performance Task** (Please refer the Introduction to the Teacher's Guide for Class PP on page \_\_ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts  | Key concepts and skills to look for   |
|---|---|
| <p><b>Task 1</b><br/>                     Present the student with a collection of cutout 2-D shapes of various sizes and shapes of rectangles, triangles and circles, by displaying them on a table. Ask the student to pick up a shape and describe it: <b>Tell anything you can about this shape.</b> You may have to use probing questions (e.g., <b>How many edges does it have?</b>). Pick up and set aside at least three shapes of the same type (e.g. three rectangles). Ask: <b>How are these shapes the same? What do we call this group of 2-D shapes? Can you find another rectangle in the larger group?</b> Repeat similarly for other triangle and circle.<br/>                     Ask the student to sort the shapes: <b>Now I want you to sort the shapes into three groups. What is name for all the shapes in this group? What is the name for the shapes in this group? What is same about all the shapes in this group?</b><br/>                     Present the student with a cone, a cylinder and a rectangular prism. Pick up a cone, and ask: <b>What is the name of this object?</b> Point to the base of the cone, and ask: <b>What is this shape? Can you see circles on a cylinder? Show it to me? Can you see circles on a rectangular prism? What shapes do you see on a rectangular prism?</b></p> | <p><i>The student is able to :</i></p> <ul style="list-style-type: none"> <li>- Identify and describe 2-D shapes.</li> <li>- Identify corners and edges on 2-D shapes.</li> <li>- Compare and describe the similarities and difference between two 2-D shapes.</li> <li>- Sort the 2-D shape and describe the sorting rule.</li> <li>- Identify faces of 3-D shapes as 2-D shapes.</li> </ul> |
| <p><b>Comments and Mark:</b></p><br><br><br><p><b>Teacher's Signature and Date:</b></p>   |   |

#### Summary of the Summative Assessment for Chapter 9

Total CA mark from Chapter 9 (Task 1: Mark out of 10): \_\_\_\_\_

#### Overall remarks on the student

Strengths:

Areas of Need:

Follow up Steps:





