



A STORY OF UNITS



## Mathematics Curriculum



### Grade 1 • MODULE 5

Identifying, Composing, and Partitioning Shapes

# PROBLEM SETS

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Info for parents: <http://bit.ly/pastmath>

Video tutorials: <http://embarc.online>

Version 3



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**GRADE 1 • MODULE 5**

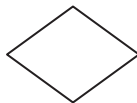
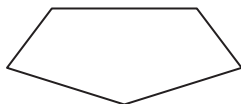
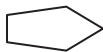
## Identifying, Composing, and Partitioning Shapes

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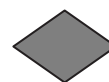
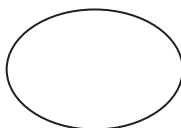
Name \_\_\_\_\_

Date \_\_\_\_\_

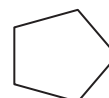
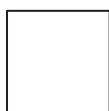
1. Circle the shapes that have 5 straight sides.



2. Circle the shapes that have no straight sides.



3. Circle the shapes where every corner is a square corner.

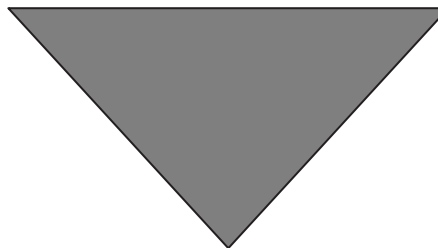


4. b. Draw a shape that has 3 straight sides.

- a. Draw another shape with 3 straight sides that is different from 4(a) and from the ones above.

5. Which attributes, or characteristics, are the same for all of the shapes in Group A?

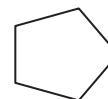
GROUP A



They all \_\_\_\_\_.

They all \_\_\_\_\_.

6. Circle the shape that best fits with Group A.



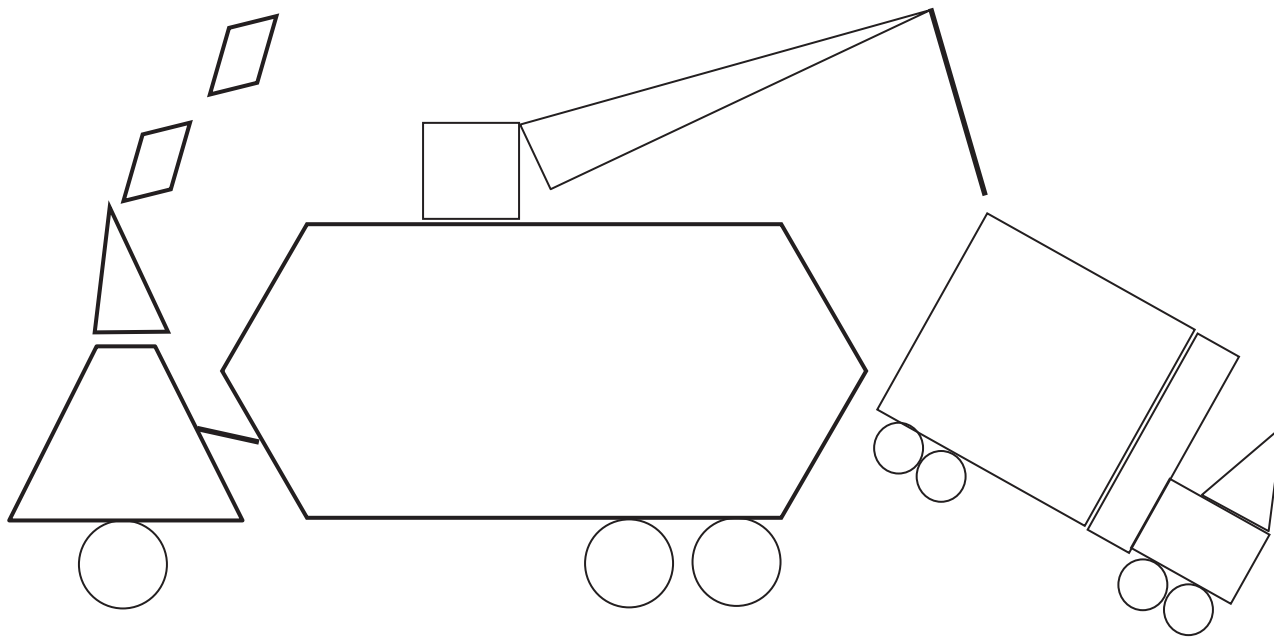
7. Draw 2 more shapes that would fit Group A.

8. Draw 1 shape that would not fit in Group A.

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Use the key to color the shapes. Write how many of each shape are in the picture. Whisper the name of the shape as you work.



a. RED—4-sided shapes: \_\_\_\_\_

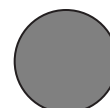
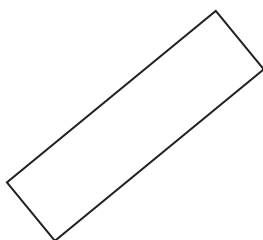
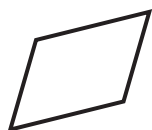
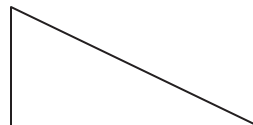
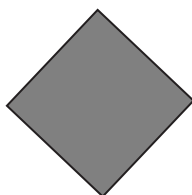
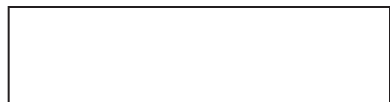
b. GREEN—3-sided shapes: \_\_\_\_\_

c. YELLOW—5-sided shapes: \_\_\_\_\_

d. BLACK—6-sided shapes: \_\_\_\_\_

e. BLUE—shape with 0 corners: \_\_\_\_\_

2. Circle the shapes that are rectangles.



3. Is the shape a rectangle? Explain your thinking.

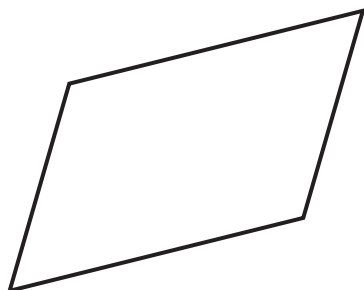
a.



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b.



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**hexagon**

closed shape with 6  
straight sides

**rectangle**

closed shape with 4  
straight sides and 4  
square corners

**square**

closed shape with 4  
straight sides of the  
same length and 4 square  
corners

**triangle**

closed shape with 3  
straight sides

**rhombus**

closed shape with 4  
straight sides of the  
same length

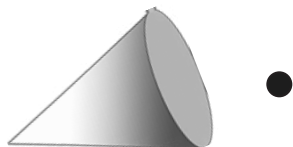
shape description cards

Name \_\_\_\_\_

Date \_\_\_\_\_

1. On the first 4 objects, color one of the flat faces red. Match each 3-dimensional shape to its name.

a.



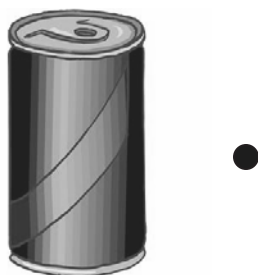
Rectangular prism

b.



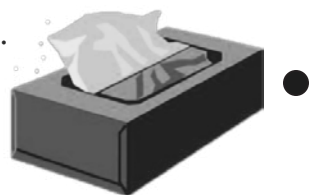
Cone

c.



Sphere

d.



Cylinder

e.



Cube

2. Write the name of each object in the correct column.



| Cubes | Spheres | Cones | Rectangular Prisms | Cylinders |
|-------|---------|-------|--------------------|-----------|
|       |         |       |                    |           |

3. Circle the attributes that describe *ALL* spheres.

have no straight sides

are round

can roll

can bounce

4. Circle the attributes that describe *ALL* cubes.

have square faces

are red

are hard

have 6 faces

**cone**

3-dimensional shape with  
only one circle or oval  
face and one point

**cube**

3-dimensional shape with  
6 square faces

**cylinder**

3-dimensional shape with  
2 circle or oval faces  
that are the same size

**rectangular prism**

3-dimensional shape with  
6 rectangle faces

**sphere**

3-dimensional shape with  
no flat faces

three-dimensional shape description cards

Name \_\_\_\_\_

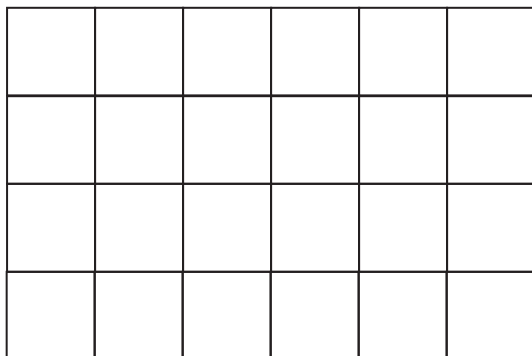
Date \_\_\_\_\_

Use pattern blocks to create the following shapes. Trace or draw to record your work.

|                                         |                                                                  |
|-----------------------------------------|------------------------------------------------------------------|
| 1. Use 3 triangles to make 1 trapezoid. | 2. Use 4 squares to make 1 larger square.                        |
| 3. Use 6 triangles to make 1 hexagon.   | 4. Use 1 trapezoid, 1 rhombus, and 1 triangle to make 1 hexagon. |

5. Make a rectangle using the squares from the pattern blocks. Trace the squares to show the rectangle you made.

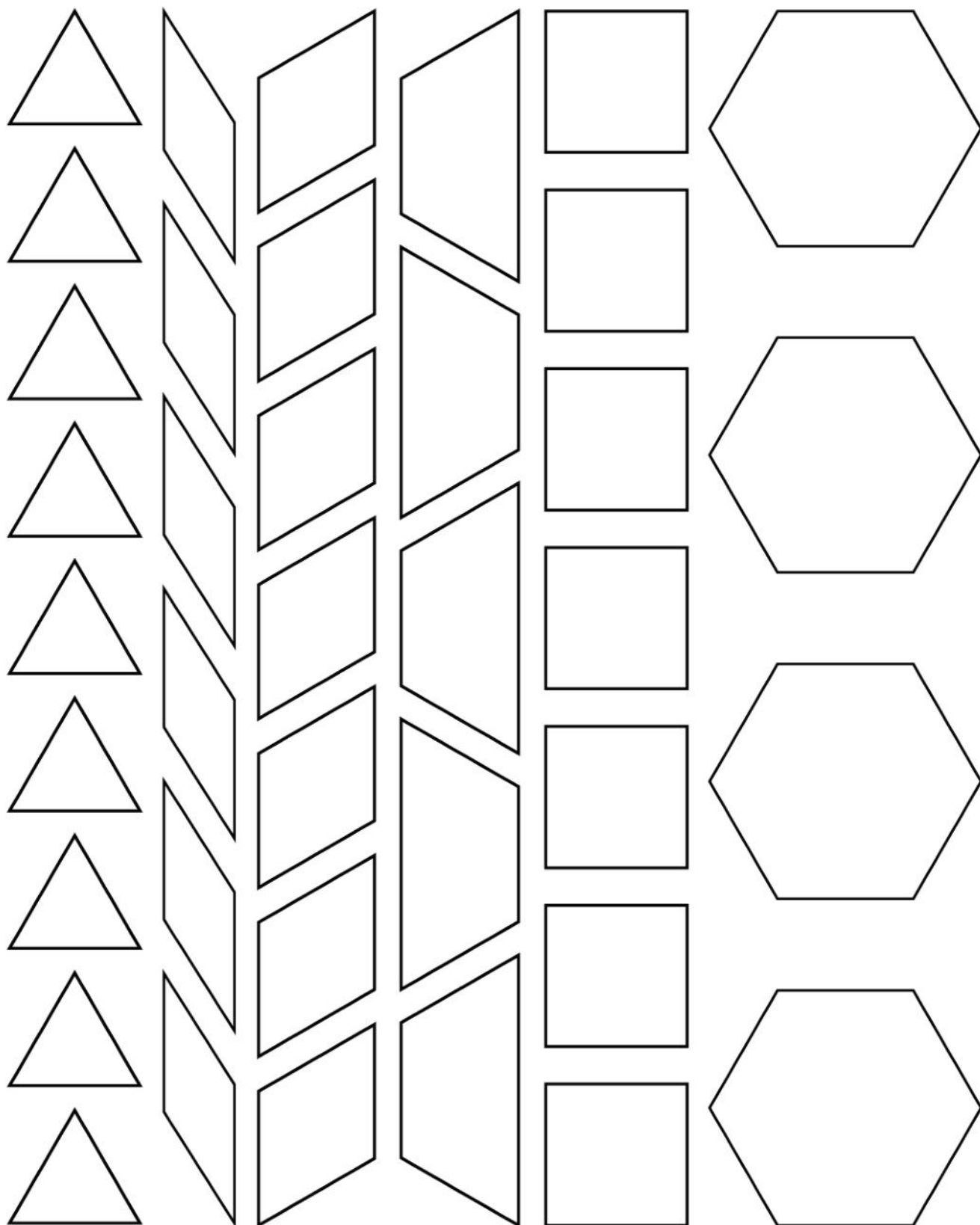
6. How many squares do you see in this rectangle?



I can find \_\_\_\_\_ squares in this rectangle.

7. Use your pattern blocks to make a picture. Trace the shapes to show what you made. Tell a partner what shapes you used. Can you find any larger shapes within your picture?

**Pattern Blocks (all)**



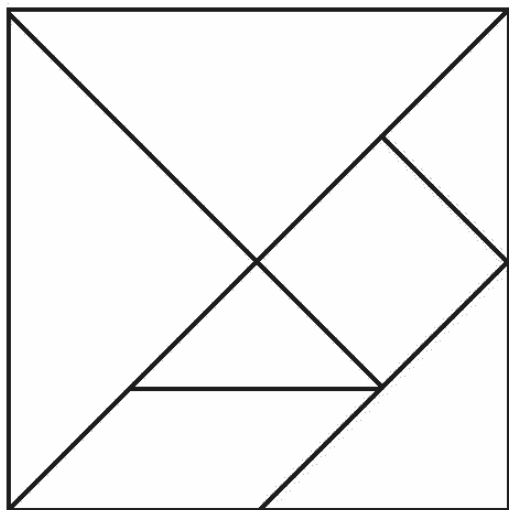


Name \_\_\_\_\_

Date \_\_\_\_\_

1.

- a. How many shapes were used to make this large square?



There are \_\_\_\_\_  
shapes in this large square.

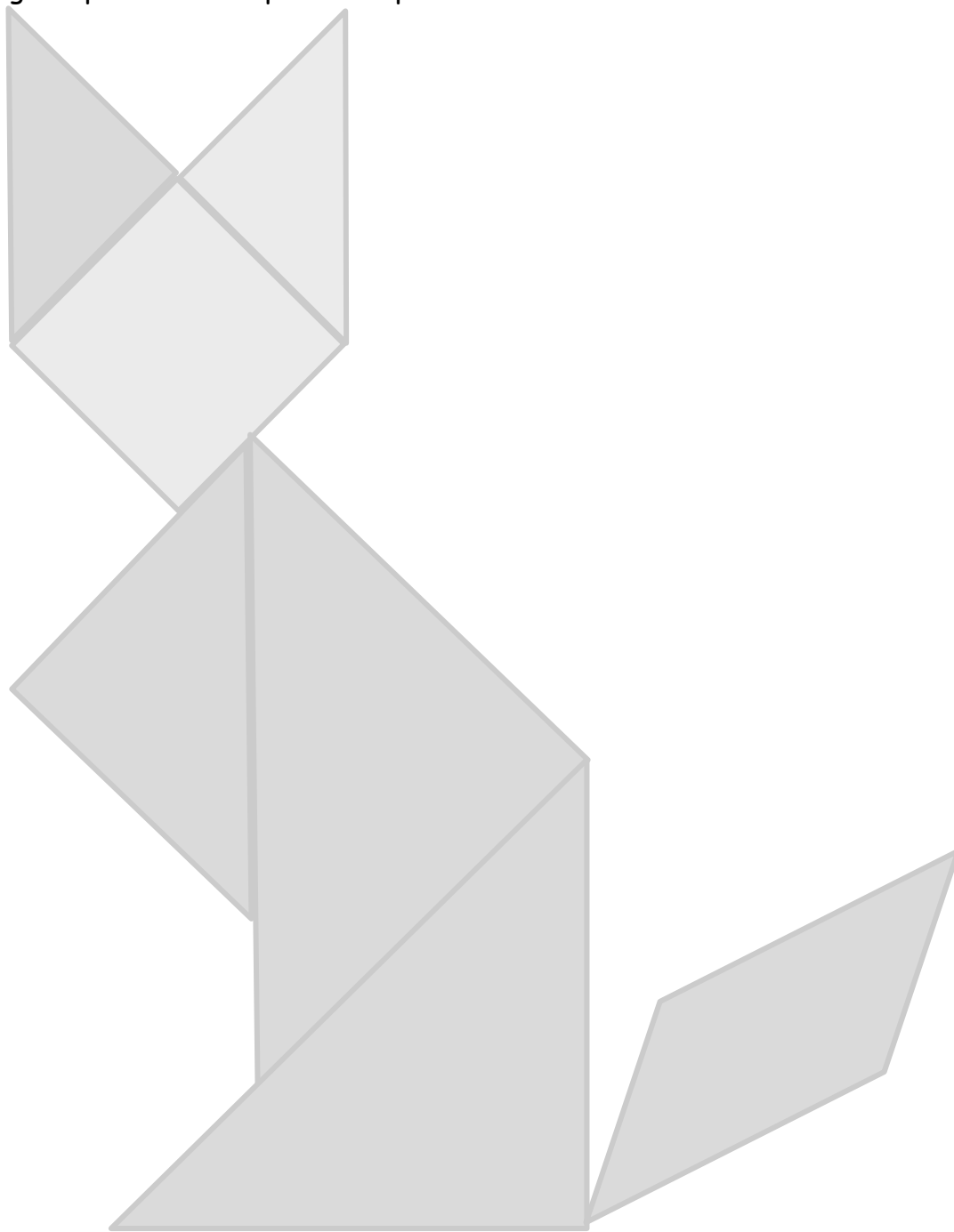
- b. What are the names of the 3 types of shapes used to make the large square?

\_\_\_\_\_

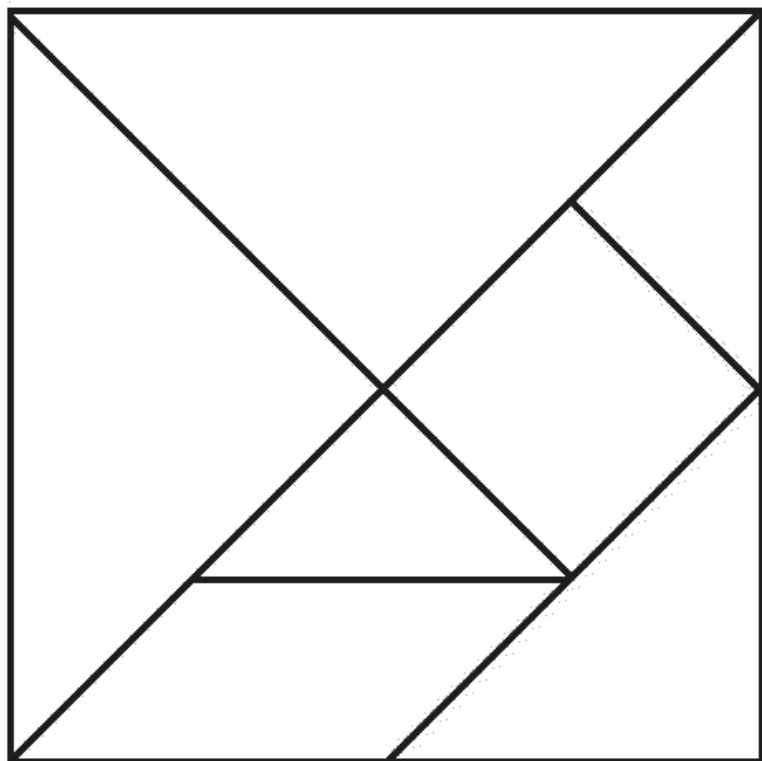
2. Use 2 of your tangram pieces to make a square. Which 2 pieces did you use? Draw or trace the pieces to show how you made the square.

3. Use 4 of your tangram pieces to make a trapezoid. Draw or trace the pieces to show the shapes you used.

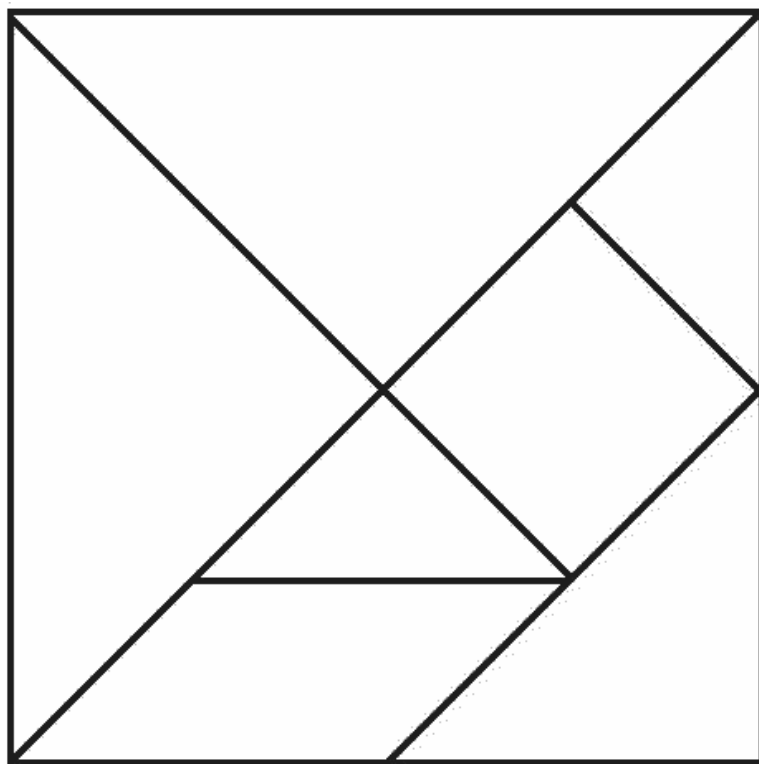
4. Use all 7 tangram pieces to complete the puzzle.



5. With a partner, make a bird or a flower using all of your pieces. Draw or trace to show the pieces you used on the back of your paper. Experiment to see what other objects you can make with your pieces. Draw or trace to show what you created on the back of your paper.



One tangram is to be used during class.  
The other tangram is to be sent home with the homework.



\_\_\_\_\_

tangram



Name \_\_\_\_\_ Date \_\_\_\_\_

1. Work with your partner and another pair to build a structure with your 3-dimensional shapes. You can use as many of the pieces as you choose.
2. Complete the chart to record the number of each shape you used to make your structure.

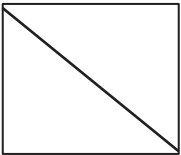
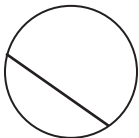
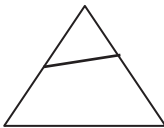
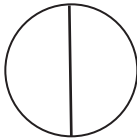
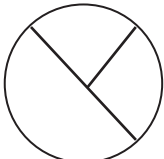
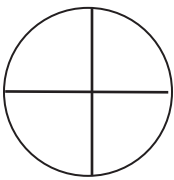
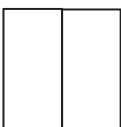
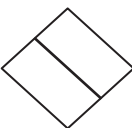
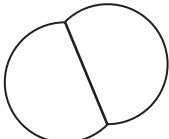
|                    |  |
|--------------------|--|
| Cubes              |  |
| Spheres            |  |
| Rectangular Prisms |  |
| Cylinders          |  |
| Cones              |  |

3. Which shape did you use on the bottom of your structure? Why?
4. Is there a shape you chose not to use? Why or why not?

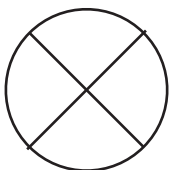
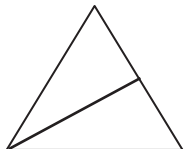
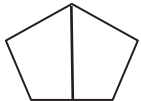
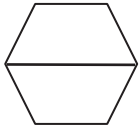
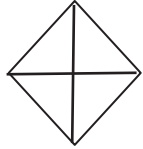
Name \_\_\_\_\_

Date \_\_\_\_\_

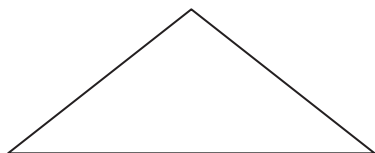
1. Are the shapes divided into equal parts? Write **Y** for yes or **N** for no. If the shape has equal parts, write how many equal parts on the line. The first one has been done for you.

|                                                                                                                                   |                                                                                                                   |                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| a. <br><b>y</b> <u>    </u> <u>    </u> <b>2</b> | b. <br><u>    </u> <u>    </u>   | c. <br><u>    </u> <u>    </u>   |
| d. <br><u>    </u> <u>    </u>                   | e. <br><u>    </u> <u>    </u>   | f. <br><u>    </u> <u>    </u>   |
| g. <br><u>    </u> <u>    </u>                 | h. <br><u>    </u> <u>    </u> | i. <br><u>    </u> <u>    </u> |
| j. <br><u>    </u> <u>    </u>                 | k. <br><u>    </u> <u>    </u> | l. <br><u>    </u> <u>    </u> |
| m. <br><u>    </u> <u>    </u>                 | n. <br><u>    </u> <u>    </u> | o. <br><u>    </u> <u>    </u> |

2. Write the number of equal parts in each shape.

|                                                                                                      |                                                                                                      |                                                                                                        |
|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| a.<br><br><br>_____ | b.<br><br><br>_____ | c.<br><br><br>_____ |
| d.<br><br><br>_____ | e.<br><br><br>_____ | f.<br><br><br>_____ |

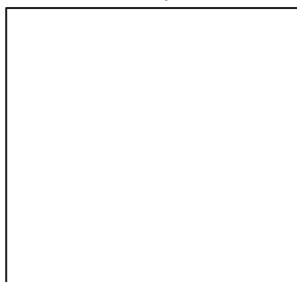
3. Draw one line to make this triangle into 2 equal triangles.



4. Draw one line to make this square into 2 equal parts.



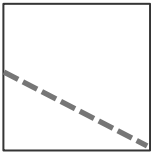
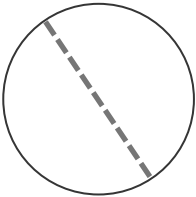
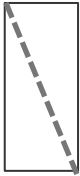
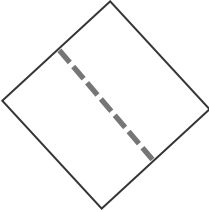
5. Draw two lines to make this square into 4 equal squares.



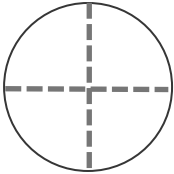
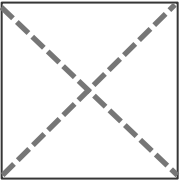
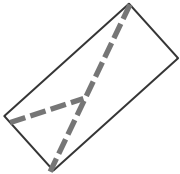
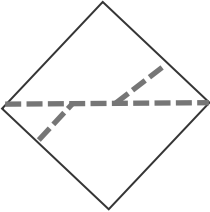
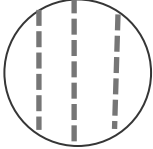
Name \_\_\_\_\_

Date \_\_\_\_\_

1. Are the shapes divided into halves? Write yes or no.

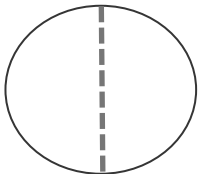
|                                                                                                  |                                                                                                  |                                                                                                    |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| a.<br><br>_____ | b.<br><br>_____ | c.<br><br>_____ |
| d.<br><br>_____ | e.<br><br>_____ | f.<br><br>_____ |

2. Are the shapes divided into quarters? Write yes or no.

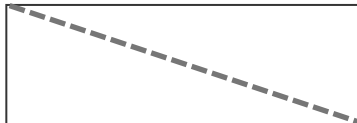
|                                                                                                    |                                                                                                    |                                                                                                      |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| a.<br><br>_____ | b.<br><br>_____ | c.<br><br>_____ |
| d.<br><br>_____ | e.<br><br>_____ | f.<br><br>_____ |

3. Color half of each shape.

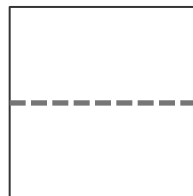
a.



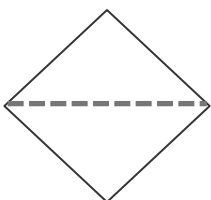
b.



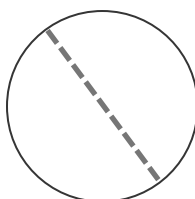
c.



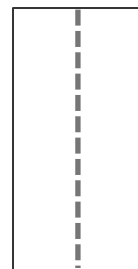
d.



e.



f.

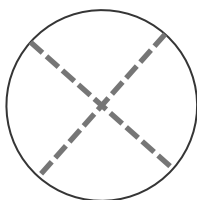


4. Color 1 fourth of each shape.

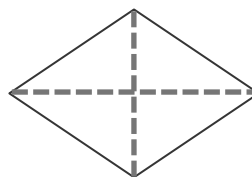
a.



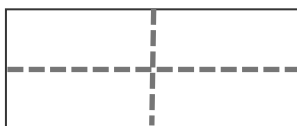
b.



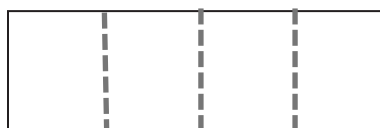
c.



d.



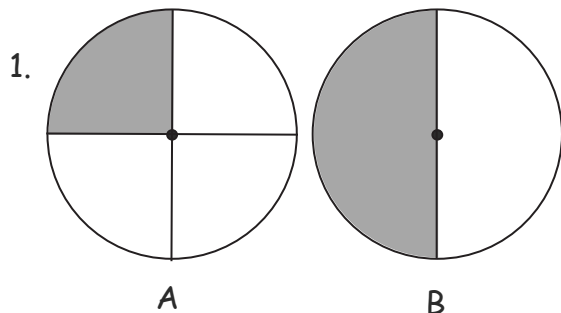
e.



Name \_\_\_\_\_

Date \_\_\_\_\_

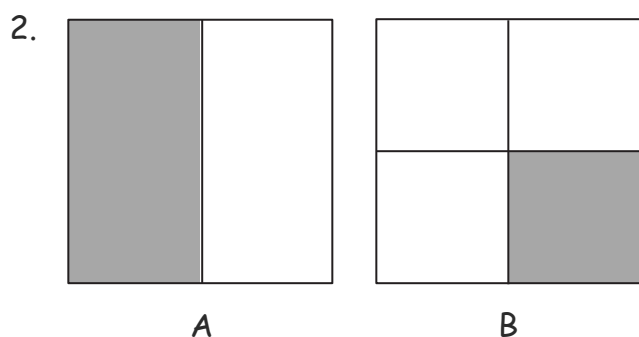
Label the shaded part of each picture as one half of the shape or one quarter of the shape.



Which shape has been cut into more equal parts? \_\_\_\_\_

Which shape has larger equal parts? \_\_\_\_\_

Which shape has smaller equal parts? \_\_\_\_\_

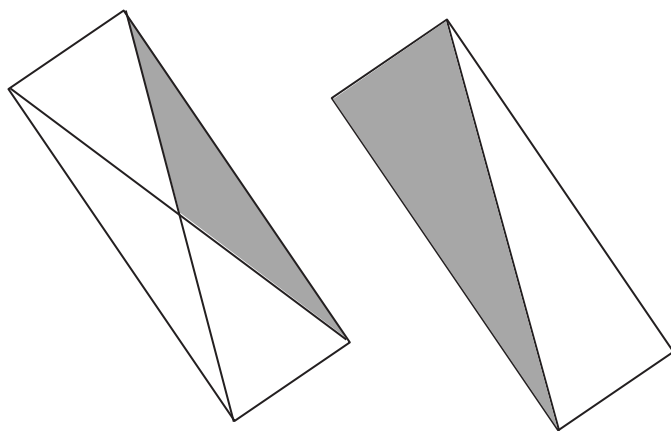


Which shape has been cut into more equal parts? \_\_\_\_\_

Which shape has larger equal parts? \_\_\_\_\_

Which shape has smaller equal parts? \_\_\_\_\_

3. Circle the shape that has a larger shaded part. Circle the phrase that makes the sentence true.



The larger shaded part is

(one half of / one quarter of)

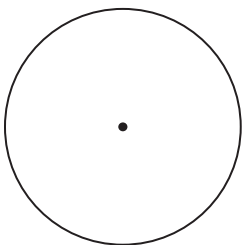
the whole shape.

Color part of the shape to match its label.

Circle the phrase that would make the statement true.

4.

One half of the circle

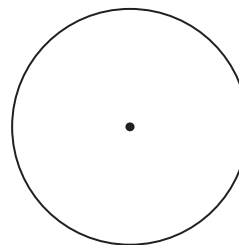


is larger than

is smaller than

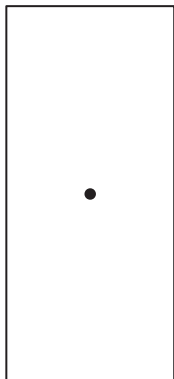
is the same size as

one fourth of the circle.



5.

One quarter of the rectangle

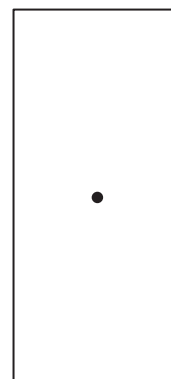


is larger than

is smaller than

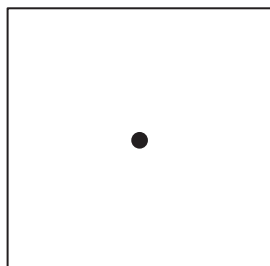
is the same size as

one half of the rectangle.



6.

One quarter of the square

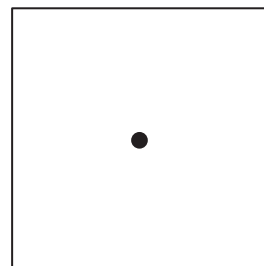


is larger than

is smaller than

is the same size as

one fourth of the square.



Name \_\_\_\_\_

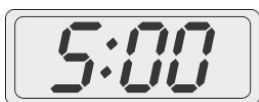
Date \_\_\_\_\_

1. Match the clocks that show the same time.

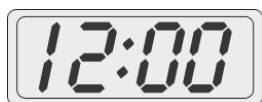
a.



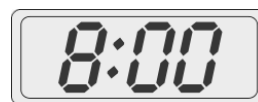
b.



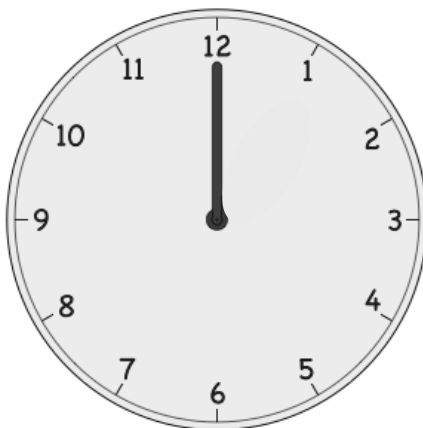
c.



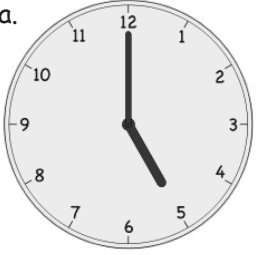
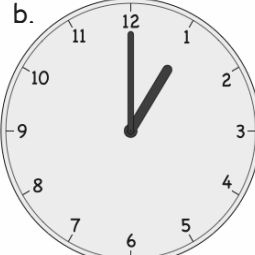
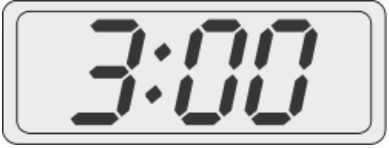
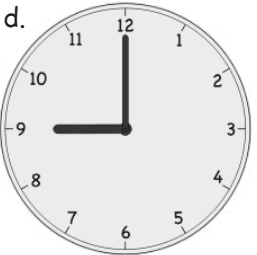
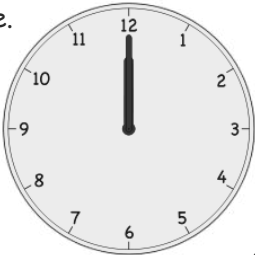
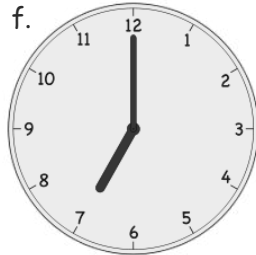
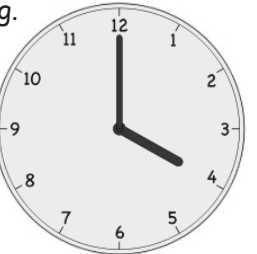
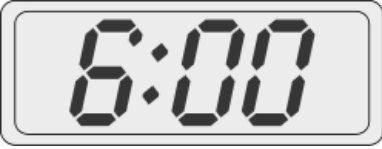
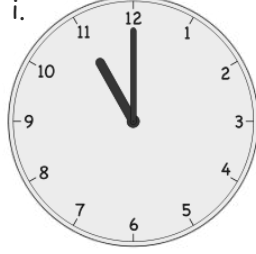
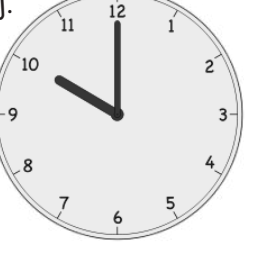
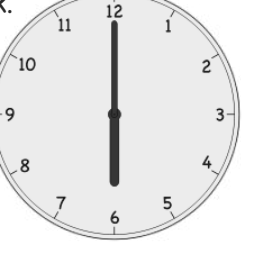
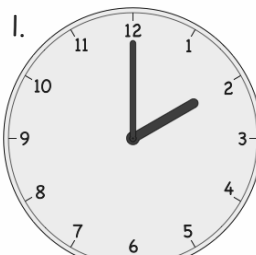
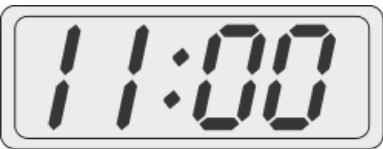
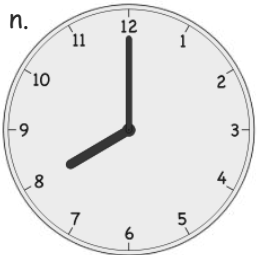
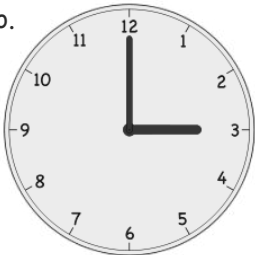
d.



2. Put the hour hand on this clock so that the clock reads 3 o'clock.



3. Write the time shown on each clock.

|                                                                                                                    |                                                                                                                    |                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <p>a.</p>  <p>_____ : _____</p>   | <p>b.</p>  <p>_____ o'clock</p>   | <p>c.</p>  <p>_____ o'clock</p>   |
| <p>d.</p>  <p>_____ o'clock</p>   | <p>e.</p>  <p>_____ : _____</p>   | <p>f.</p>  <p>_____ o'clock</p>   |
| <p>g.</p>  <p>_____ : _____</p>  | <p>h.</p>  <p>_____ o'clock</p>  | <p>i.</p>  <p>_____ : _____</p>  |
| <p>j.</p>  <p>_____ o'clock</p> | <p>k.</p>  <p>_____ : _____</p> | <p>l.</p>  <p>_____ o'clock</p> |
| <p>m.</p>  <p>_____</p>         | <p>n.</p>  <p>_____</p>         | <p>o.</p>  <p>_____</p>         |

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Match the clocks to the times on the right.

a.



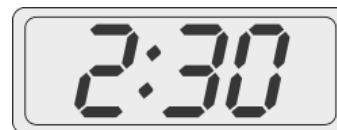
b.



c.



Half past 5 o'clock



Five thirty



Half past 12 o'clock



Two thirty

2. Draw the minute hand so the clock shows the time written above it.

a. 7 o'clock



b. 8 o'clock



c. 7:30



d. 1:30



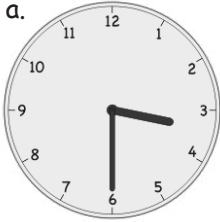
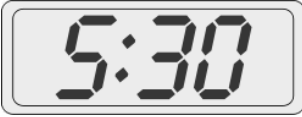
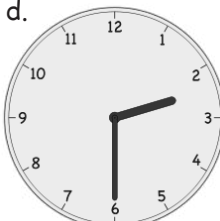
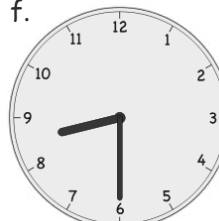
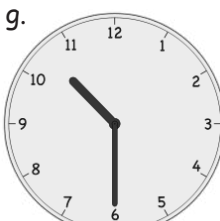
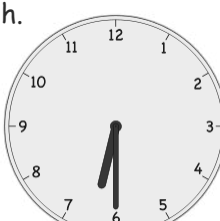
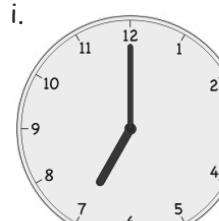
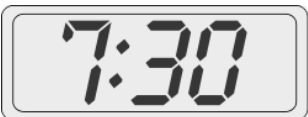
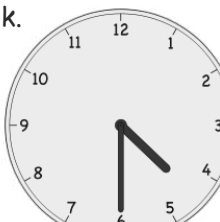
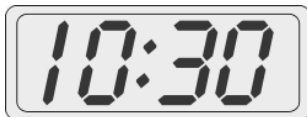
e. 2:30



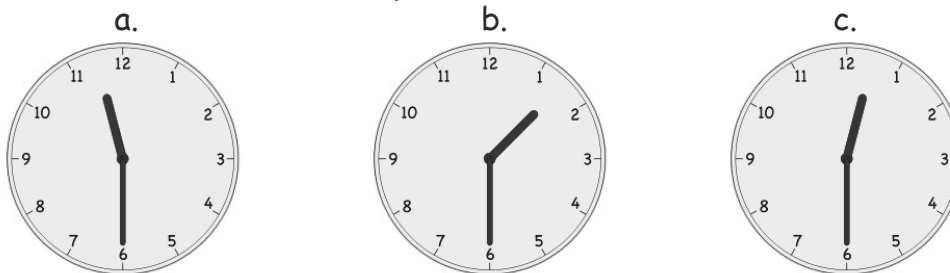
f. 2 o'clock



3. Write the time shown on each clock. Complete problems like the first two examples.

|                                                                                                            |                                                                                                                |                                                                                                              |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <p>a.</p>  <p>3:30</p>    | <p>b.</p>  <p>five thirty</p> | <p>c.</p>  <p>_____</p>   |
| <p>d.</p>  <p>_____</p>   | <p>e.</p>  <p>_____</p>       | <p>f.</p>  <p>_____</p>    |
| <p>g.</p>  <p>_____</p>  | <p>h.</p>  <p>_____</p>      | <p>i.</p>  <p>_____</p>   |
| <p>j.</p>  <p>_____</p> | <p>k.</p>  <p>_____</p>     | <p>l.</p>  <p>_____</p> |

4. Circle the clock that shows half past 12 o'clock.

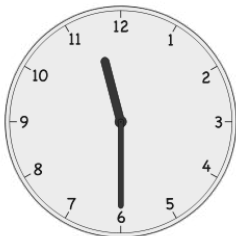


Name \_\_\_\_\_

Date \_\_\_\_\_

Fill in the blanks.

1.



A



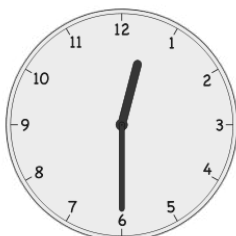
B

Clock \_\_\_\_\_ shows half past eleven.

2.



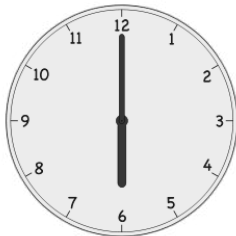
A



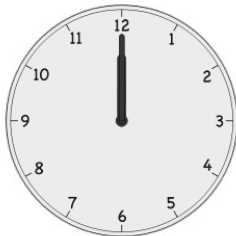
B

Clock \_\_\_\_\_ shows half past two.

3.



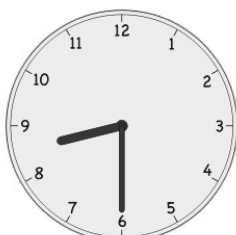
A



B

Clock \_\_\_\_\_ shows 6 o'clock.

4.



A



B

Clock \_\_\_\_\_ shows 9:30.

5.



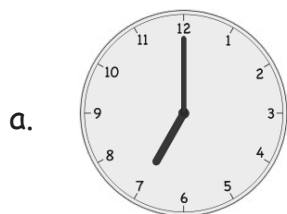
A



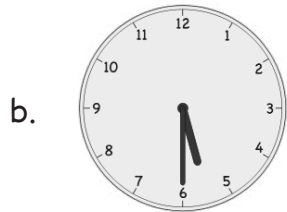
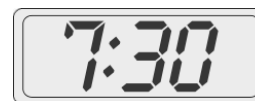
B

Clock \_\_\_\_\_ shows half past six.

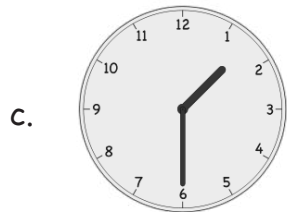
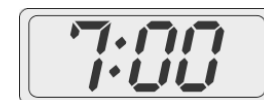
6. Match the clocks.



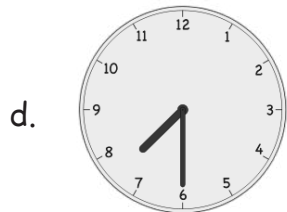
half past 7



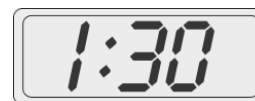
half past 1



7 o'clock

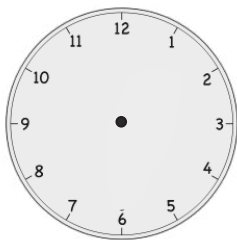


half past 5

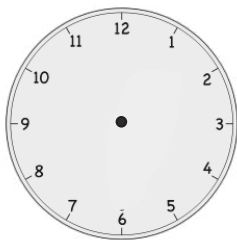


7. Draw the minute and hour hands on the clocks.

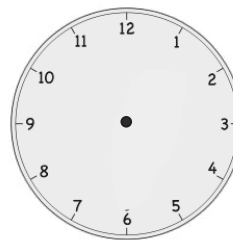
a. 3:30



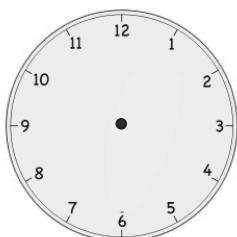
b. 8:30



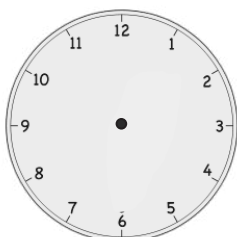
c. 11:00



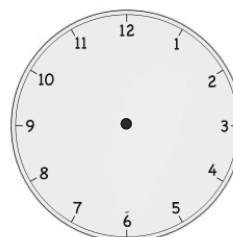
d. 6:00



e. 4:30



f. 12:30

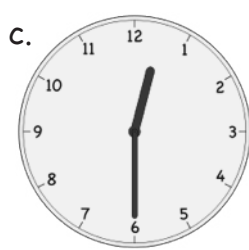
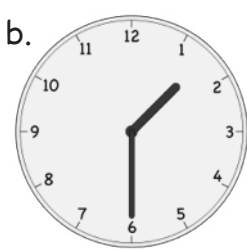
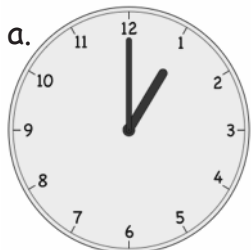


Name \_\_\_\_\_

Date \_\_\_\_\_

Circle the correct clock. Write the times for the other two clocks on the lines.

1. Circle the clock that shows half past 1 o'clock.

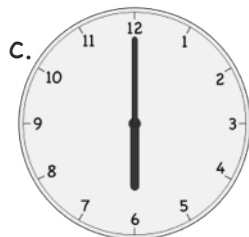
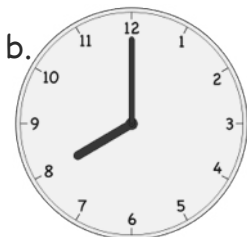



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2. Circle the clock that shows 7 o'clock.

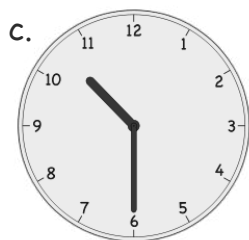
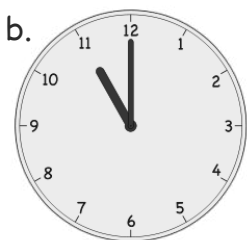
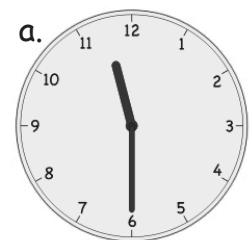



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3. Circle the clock that shows half past 10 o'clock.

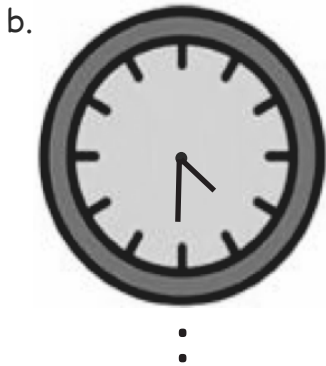
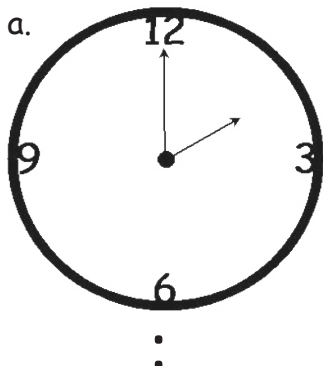



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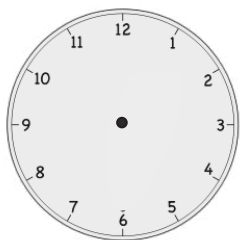
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4. What time is it? Write the times on the lines.

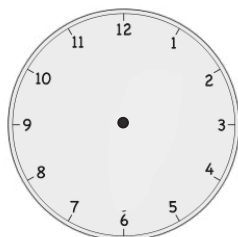


5. Draw the minute and hour hands on the clocks.

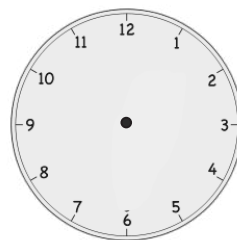
a. 1:00



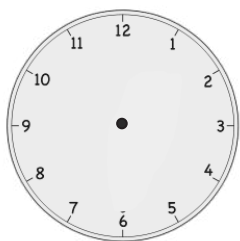
b. 1:30



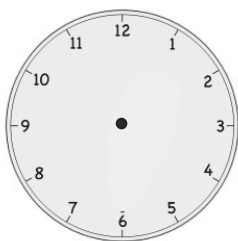
c. 2:00



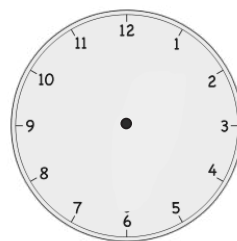
d. 6:30



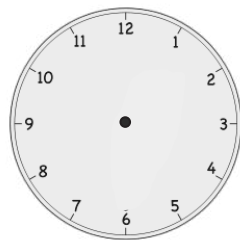
e. 7:30



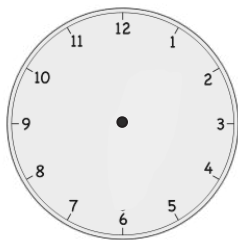
f. 8:30



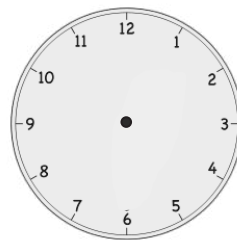
g. 10:00



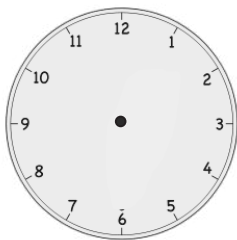
h. 11:00



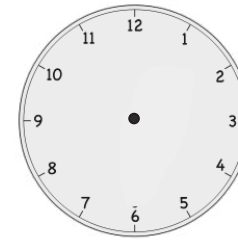
i. 12:00



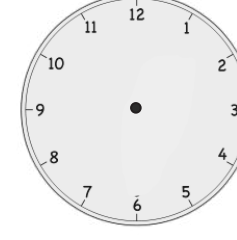
j. 9:30



k. 3:00

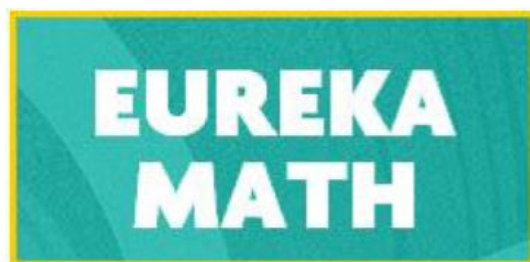


l. 5:30









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Video tutorials: <http://embarc.online>



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