IMKH California

GRADE 7

Teacher Resource Copy Masters

UNITS 1-3

Illustrative Mathematics LEARN MATH FOR LIFE | Kendall Hunt

Book 1
Certified by Illustrative Mathematics®

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GRADE 7

UNIT

1

Teacher Resource Copy Masters

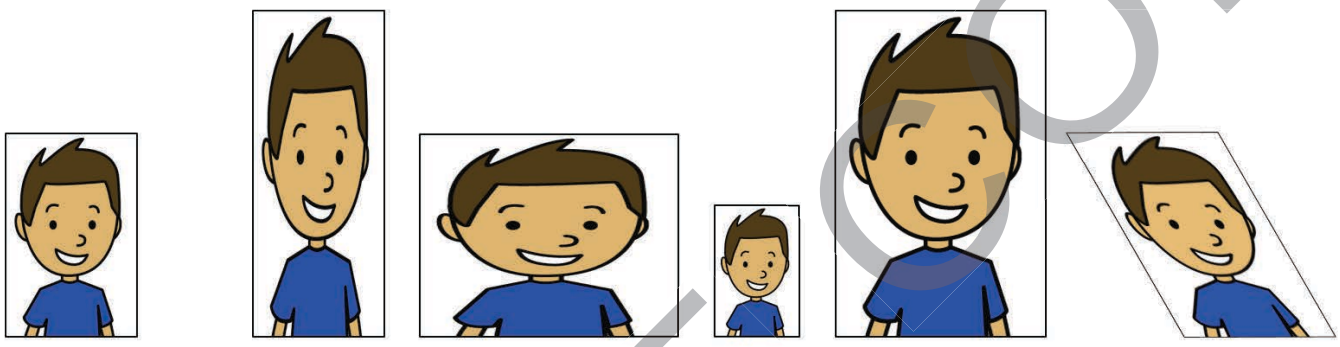
LESSON BLACKLINE MASTERS

Unit 1 Family Support Materials

Scale Drawings

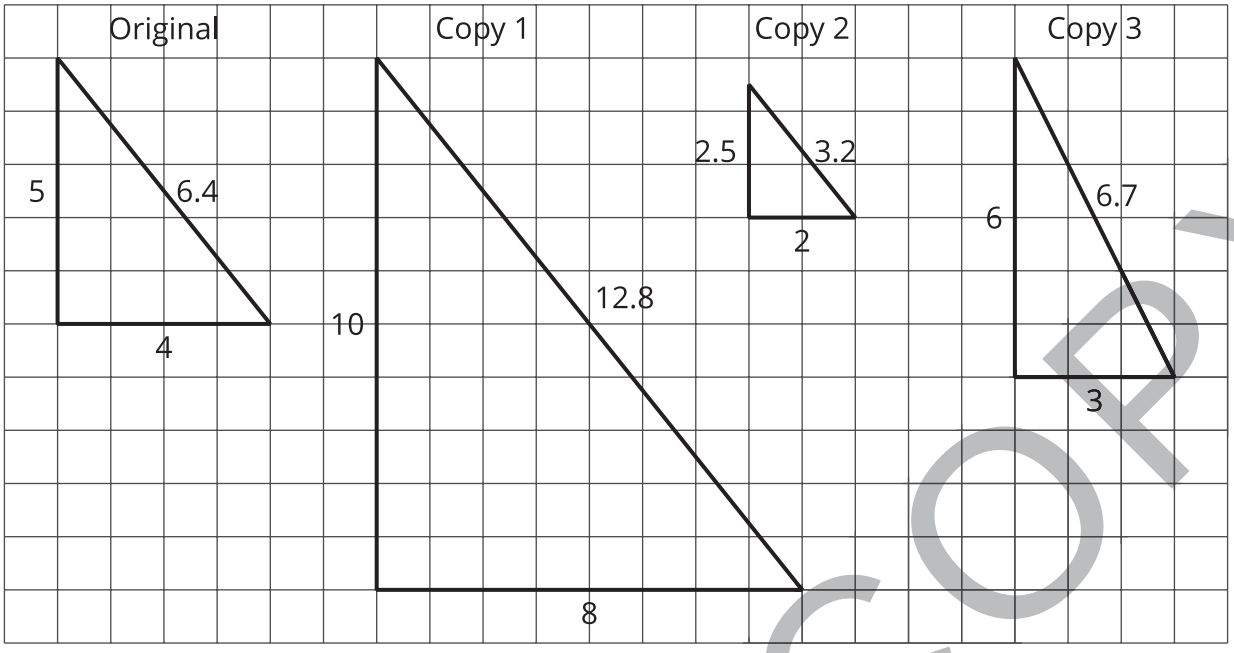
Section A: Scaled Copies

This week your student will learn about scaling shapes. An image is a **scaled copy** of the original if the shape is stretched in a way that does not distort it. For example, here is an original picture and five copies. Pictures C and D are scaled copies of the original, but pictures A, B, and E are not.



In each scaled copy, the sides are a certain number of times as long as the corresponding sides in the original. We call this number the **scale factor**. The size of the scale factor affects the size of the copy. A scale factor greater than 1 makes a copy that is larger than the original. A scale factor less than 1 makes a copy that is smaller.

Here is a task to try with your student:



1. For each copy, tell whether it is a scaled copy of the original triangle. If so, what is the scale factor?
2. Draw another scaled copy of the original triangle using a different scale factor.

Solution:

1. a. Copy 1 is a scaled copy of the original triangle. The scale factor is 2, because each side in Copy 1 is twice as long as the corresponding side in the original triangle. $5 \cdot 2 = 10$, $4 \cdot 2 = 8$, $(6.4) \cdot 2 = 12.8$

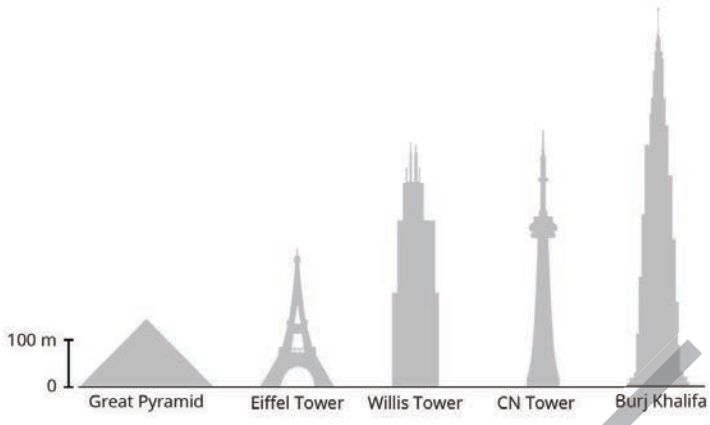
   b. Copy 2 is a scaled copy of the original triangle. The scale factor is $\frac{1}{2}$ or 0.5, because each side in Copy 2 is half as long as the corresponding side in the original triangle. $5 \cdot (0.5) = 2.5$, $4 \cdot (0.5) = 2$, $(6.4) \cdot (0.5) = 3.2$

   c. Copy 3 is not a scaled copy of the original triangle. The shape has been distorted. The angles are different sizes and there is not one number that we can multiply by each side length of the original triangle to get the corresponding side length in Copy 3.

2. Answers vary. Sample response: A right triangle with side lengths of 12, 15, and 19.2 units would be a scaled copy of the original triangle using a scale factor of 3.

Section B: Scale Drawings

This week your student will be learning about scale drawings. A **scale drawing** is a two-dimensional representation of an actual object or place. Maps and floor plans are some examples of scale drawings.



The **scale** tells us what some length on the scale drawing represents in actual length. For example, a scale of "1 inch to 5 miles" means that 1 inch on the drawing represents 5 actual miles. If the drawing shows a road that is 2 inches long, we know that the road is actually $2 \cdot 5$, or 10, miles long.

Scales can be written with units (for example, 1 inch to 5 miles), or without units (for example, 1 to 50, or 1 to 400). When a scale does not have units, the same unit is used for distances on the scale drawing and actual distances. For example, a scale of "1 to 50" means 1 centimeter on the drawing represents 50 actual centimeters, 1 inch represents 50 actual inches, etc.

Here is a task to try with your student:

Kiran drew a floor plan of his classroom using the scale 1 inch to 6 feet.

1. Kiran's drawing is 4 inches wide and $5\frac{1}{2}$ inches long. What are the dimensions of the actual classroom?
2. A table in the classroom is 3 feet wide and 6 feet long. What size should it be on the scale drawing?
3. Kiran wants to make a larger scale drawing of the same classroom. Which of these scales could he use?

A. 1 to 50

B. 1 to 72

C. 1 to 100

Solution:

1. 24 feet wide and 33 feet long. Because each inch on the drawing represents 6 feet, we can multiply by 6 to find the actual measurements. The actual classroom is 24 feet wide because $4 \cdot 6 = 24$. The classroom is 33 feet long because $5\frac{1}{2} \cdot 6 = (5 \cdot 6) + (\frac{1}{2} \cdot 6) = 30 + 3 = 33$
2. $\frac{1}{2}$ inch wide and 1 inch long. We can divide by 6 to find the measurements on the drawing. $3 \div 6 = \frac{1}{2}$ and $6 \div 6 = 1$.
3. Choice A. 1 to 50. The scale "1 inch to 6 feet" is equivalent to the scale "1 to 72" because there are 72 inches in 6 feet. The scale "1 to 100" would make a scale drawing that is smaller than the scale "1 to 72" because each inch on the new drawing would represent more actual length. The scale "1 to 50" would make a scale drawing that is larger than the scale "1 to 72" because Kiran would need more inches on the drawing to represent the same actual length.

GRADE 7

UNIT

1

Teacher Resource Copy Masters

LESSON BLACKLINE MASTERS

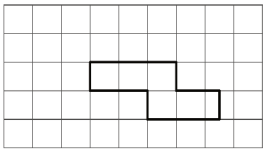
address	title	students per copy	written on?	requires cutting?	card stock recommended?	color paper recommended?	used multiple times?	used as a center material?
Activity Grade7.1.1.1	6–12 Blank Math Community Chart	30	no	no	no	no	no	no
Activity Grade7.1.1.3	Pairs of Scaled Polygons Cards	2	no	yes	no	yes	no	no
Activity Grade7.1.5.2	Scaled Copies Cards	3	no	yes	no	yes	no	no
Activity Grade7.1.5.3	Scaling A Puzzle Cutouts	6	yes	yes	yes	no	no	no
Activity Grade7.1.6.3	Area of Scaled Parallelograms and Triangles Cards	6	no	yes	no	no	no	no
Activity Grade7.1.7.2	Sizing Up a Basketball Court Handout	1	no	no	no	no	no	no
Activity Grade7.1.10.2	Same Plot, Different Drawings Cards	24	no	yes	no	no	no	no
Activity Grade7.1.11.2	Apollo Lunar Module Handout	1	yes	no	no	no	no	no

address	title	students per copy	written on?	requires cutting?	card stock recommended?	color paper recommended?	used multiple times?	used as a center material?
Activity Grade7.1.12.2	Scales Cards	4	no	yes	no	yes	no	no
Activity Grade7.1.12.2	Units of Length Reference Sheet	2	no	no	no	no	yes	no
Activity Grade7.1.12.3	Units of Length Reference Sheet	2	no	no	no	no	yes	no
Activity Grade7.1.12.4	Pondering Pools Handout	2	no	no	no	no	no	no

Math Community		
Doing Math		**Norms**
Students Looks like / Sounds like		**Students** Looks like / Sounds like
Teacher Looks like / Sounds like		**Teacher** Looks like / Sounds like

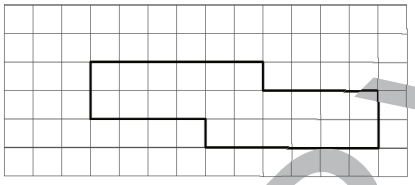
Pairs of Scaled Polygons

A



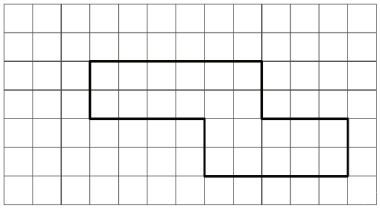
Pairs of Scaled Polygons

B



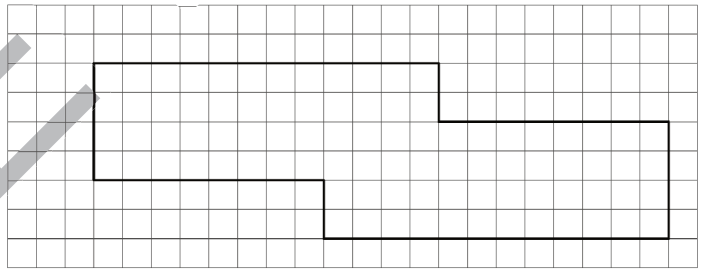
Pairs of Scaled Polygons

C



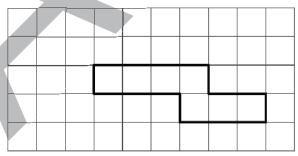
Pairs of Scaled Polygons

D



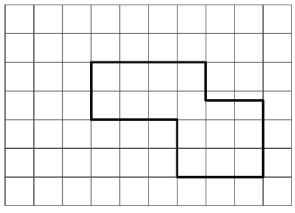
Pairs of Scaled Polygons

E



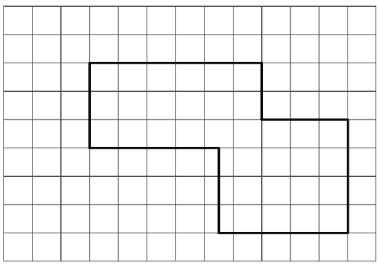
Pairs of Scaled Polygons

F



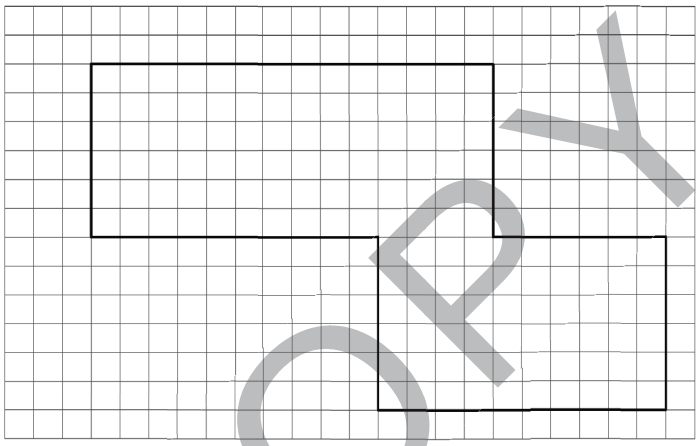
Pairs of Scaled Polygons

G



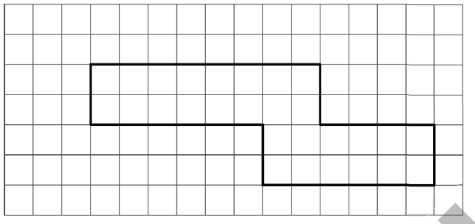
Pairs of Scaled Polygons

H



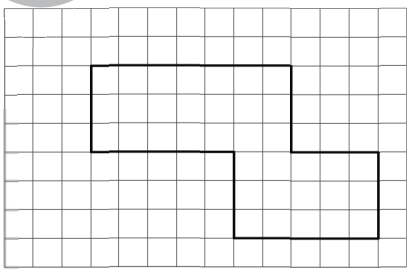
Pairs of Scaled Polygons

I

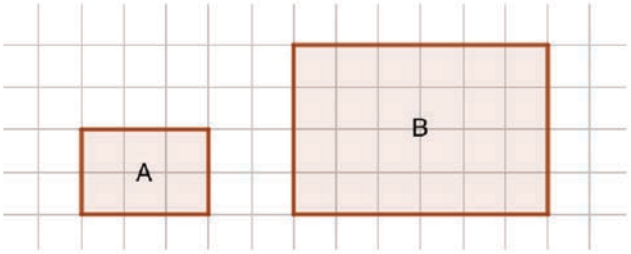


Pairs of Scaled Polygons

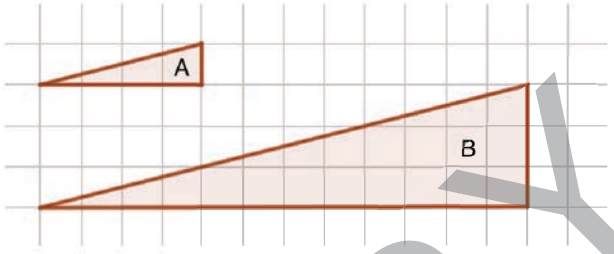
J



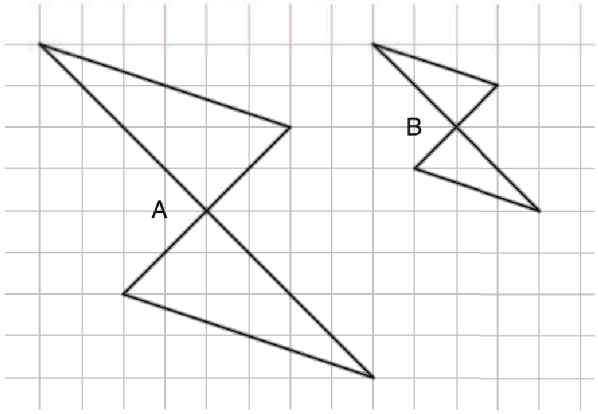
Card Sort: Scaled Copies - Card 1



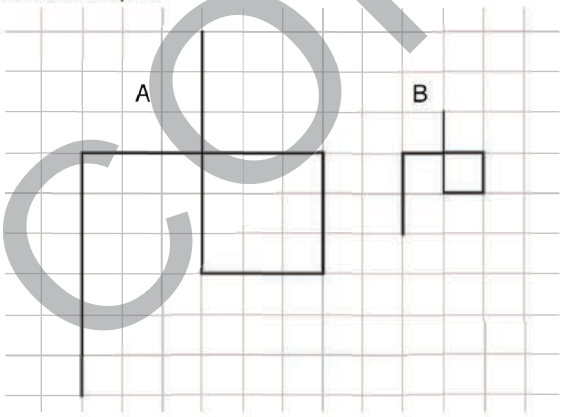
Card Sort: Scaled Copies - Card 2



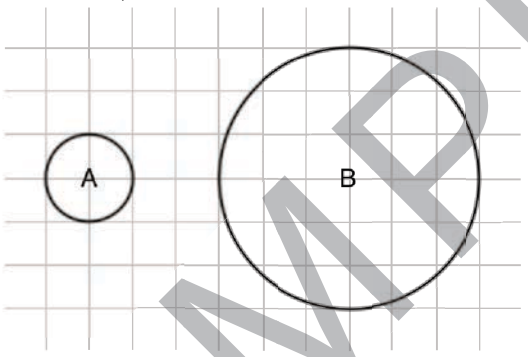
Card Sort: Scaled Copies - Card 3



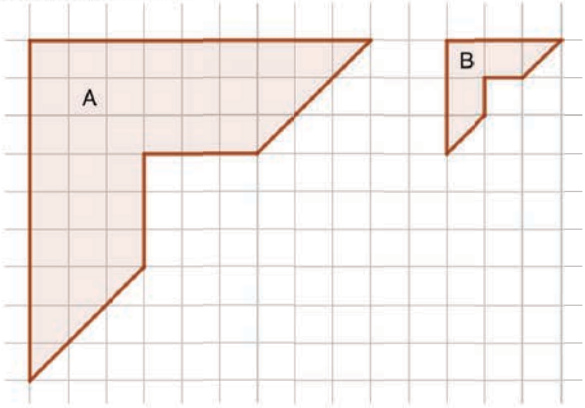
Card Sort: Scaled Copies - Card 4



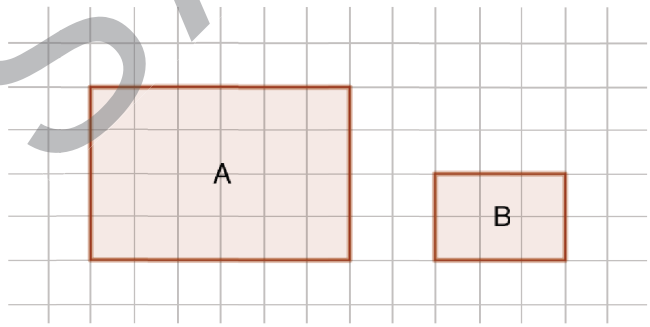
Card Sort: Scaled Copies - Card 5



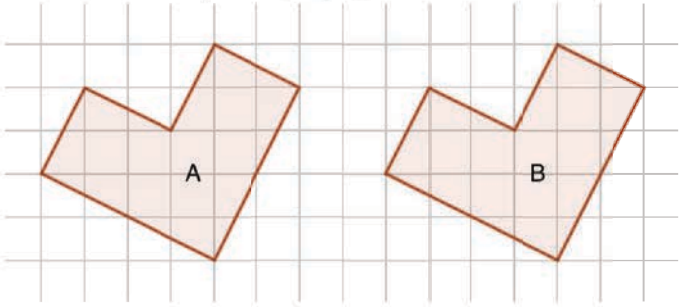
Card Sort: Scaled Copies - Card 6



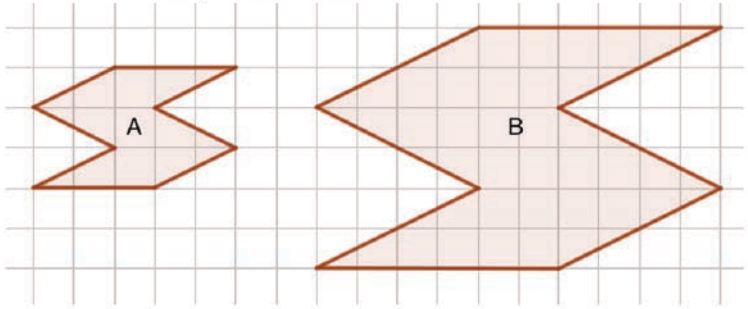
Card Sort: Scaled Copies - Card 7



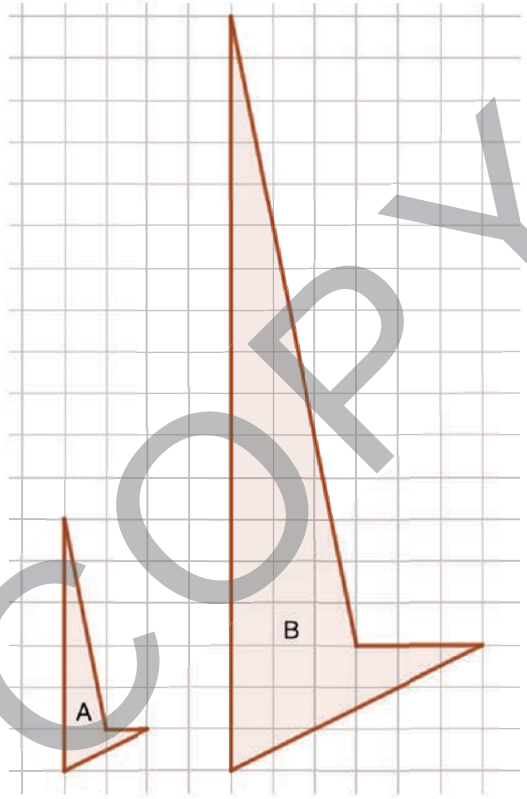
Card Sort: Scaled Copies - Card 8



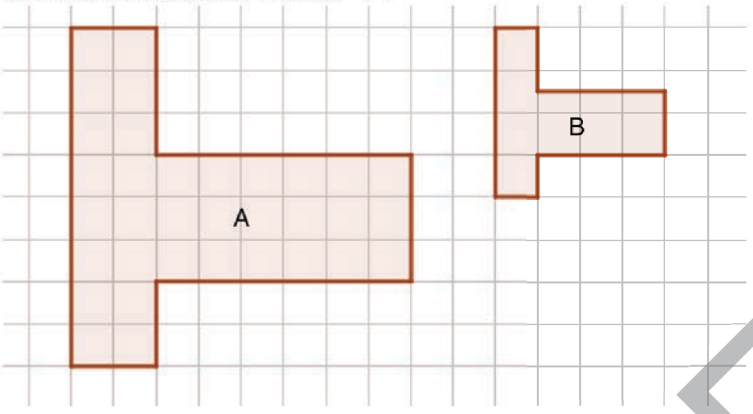
Card Sort: Scaled Copies - Card 9



Card Sort: Scaled Copies - Card 10



Card Sort: Scaled Copies - Card 11



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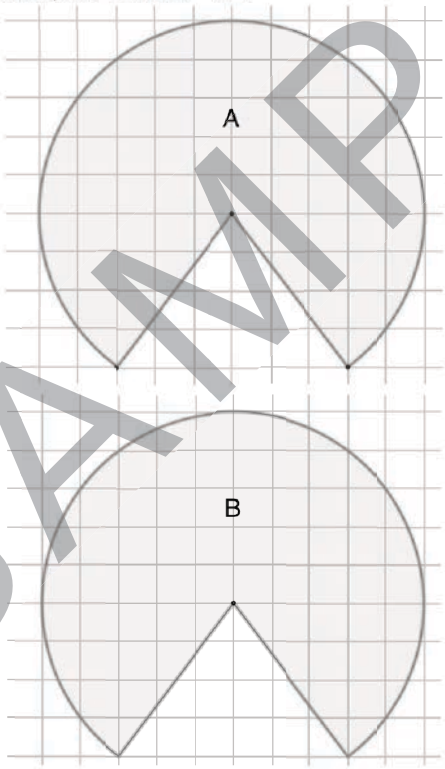
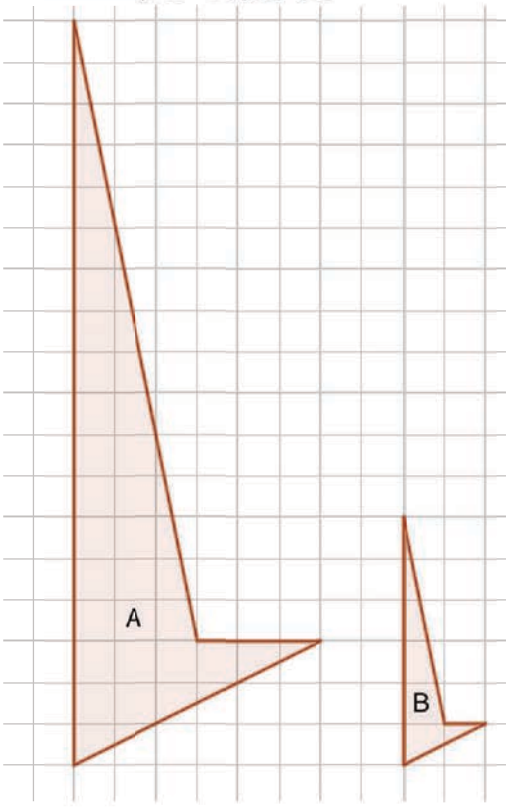
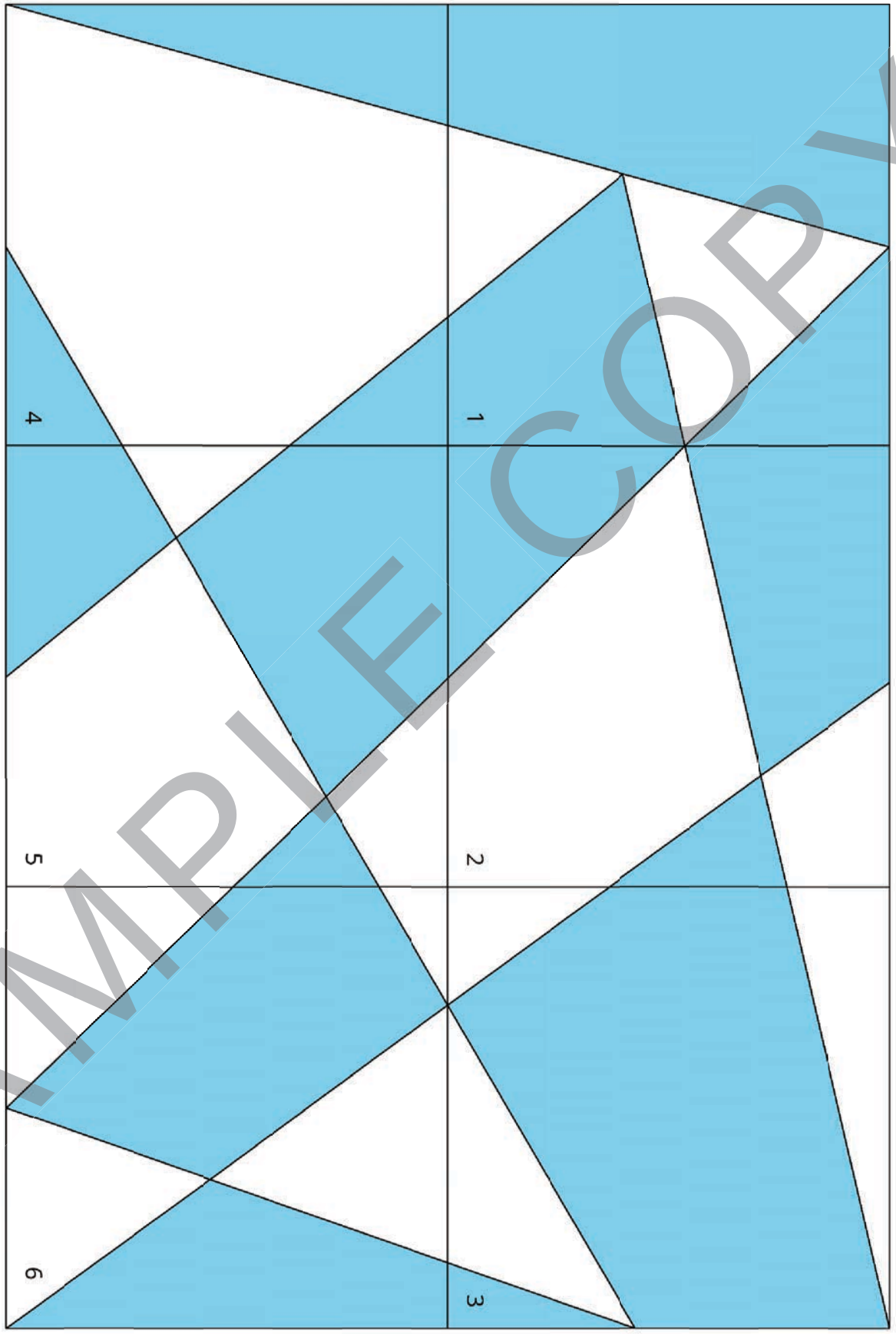
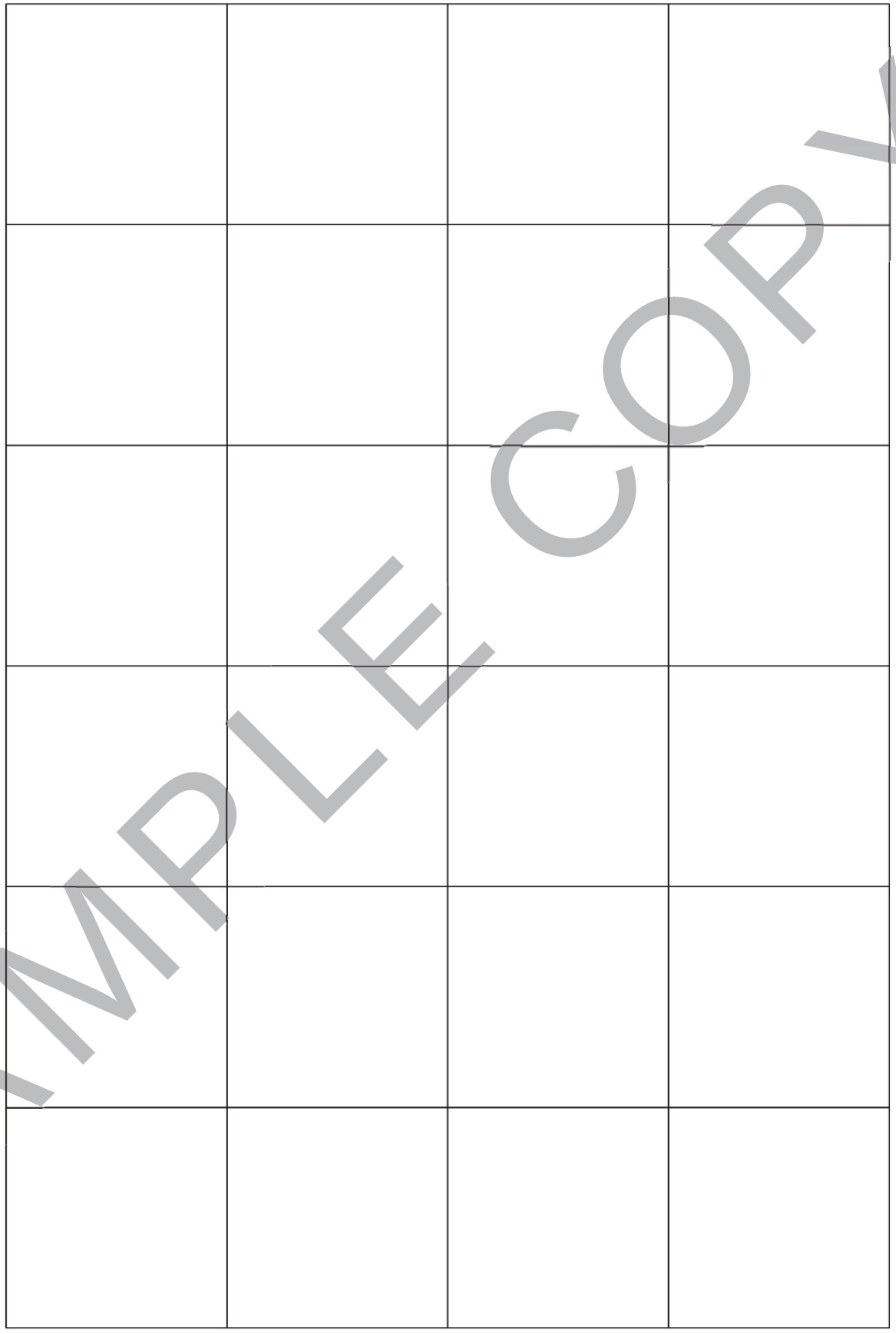


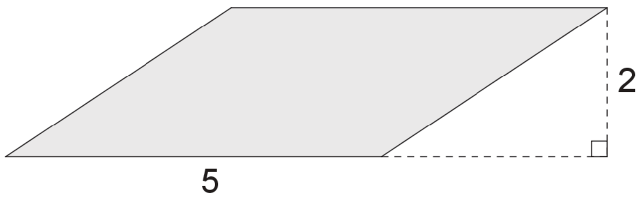
Card Sort: Scaled Copies - Card 13







Area of Scaled Parallelograms and Triangles



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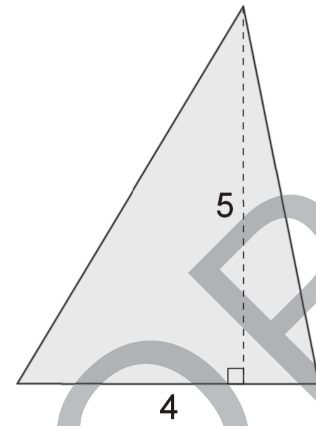

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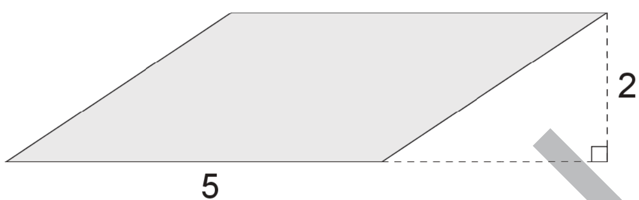

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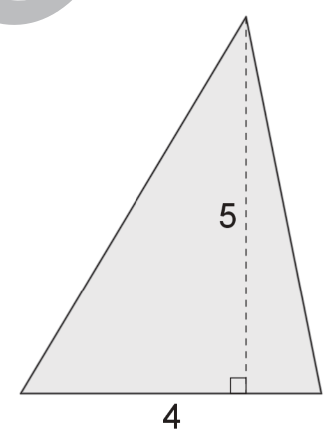

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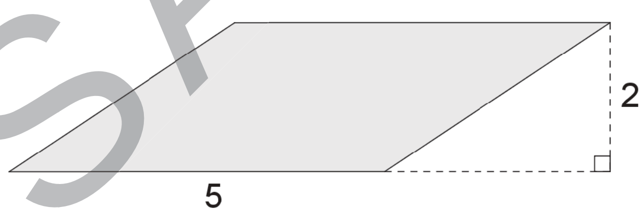

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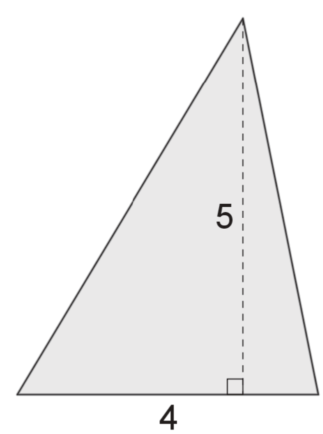

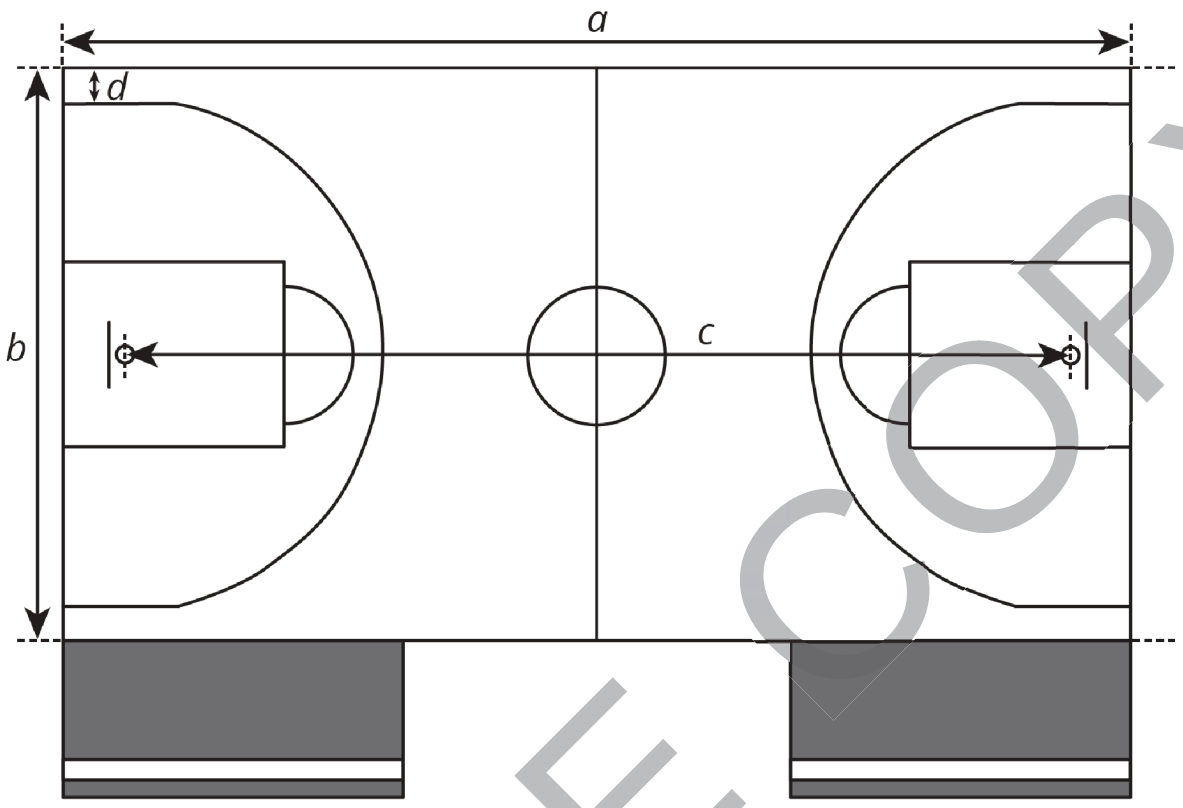

1 cm represents 2 m

Same Plot, Different Drawings 1 cm to 5 m	Same Plot, Different Drawings 1 cm to 10 m	Same Plot, Different Drawings 1 cm to 15 m
Same Plot, Different Drawings 1 cm to 20 m	Same Plot, Different Drawings 1 cm to 30 m	Same Plot, Different Drawings 1 cm to 50 m
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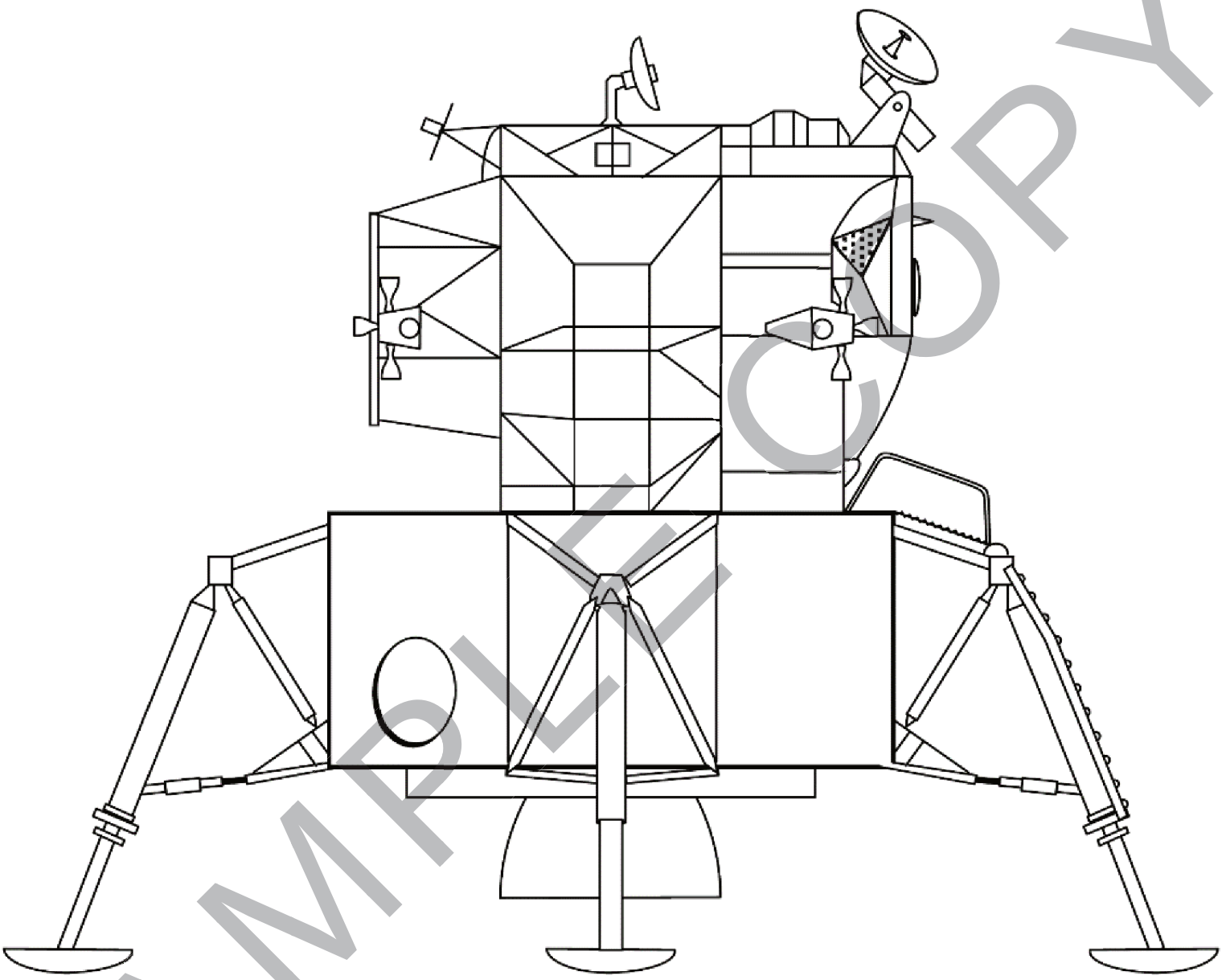

https://upload.wikimedia.org/wikipedia/commons/9/92/Manned_Moon_landers_LK_vs_LM_-_to_scale_drawing.png

Card Sort: Scales

1 centimeter to 10 meters

Card Sort: Scales

$\frac{1}{2}$ centimeter to 500 meters

Card Sort: Scales

1 centimeter to 1 meter

Card Sort: Scales

$\frac{1}{8}$ inch to 1 foot

Card Sort: Scales

1 millimeter to 1 meter

Card Sort: Scales

1 to 96

Card Sort: Scales

1 centimeter to 1 kilometer

Card Sort: Scales

1 to 100

Card Sort: Scales

1 inch to 1,000 inches

Card Sort: Scales

1 to 5,280

Card Sort: Scales

1 foot to 1 mile

Card Sort: Scales

1 to 63,360

Card Sort: Scales

1 inch to 1 mile

Card Sort: Scales

1 to 100,000

Card Sort: Scales

1 inch to 8 feet

Units of Length Reference Sheet

Customary Units

1 foot (ft) = 12 inches (in)
1 yard (yd) = 36 inches
1 yard = 3 feet
1 mile = 5,280 feet

Metric Units

1 centimeter (cm) = 10 millimeters (mm)
1 meter (m) = 1,000 millimeters
1 meter = 100 centimeters
1 kilometer (km) = 1,000 meters

Equal Lengths in Different Systems

1 inch = 2.54 centimeters	1 centimeter ≈ 0.39 inch
1 foot ≈ 0.30 meter	1 meter ≈ 39.27 inches
1 mile ≈ 1.61 kilometers	1 kilometer ≈ 0.62 mile

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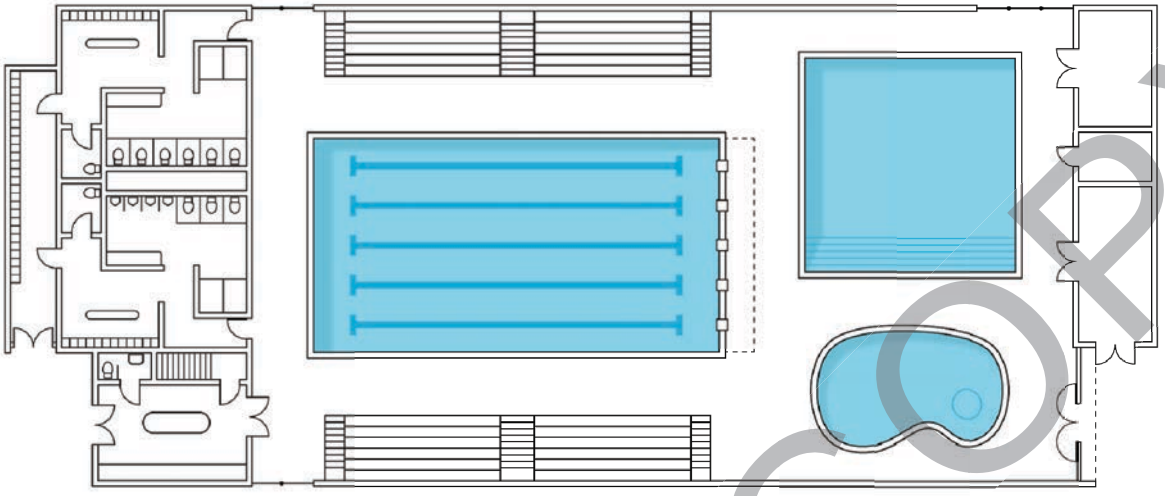

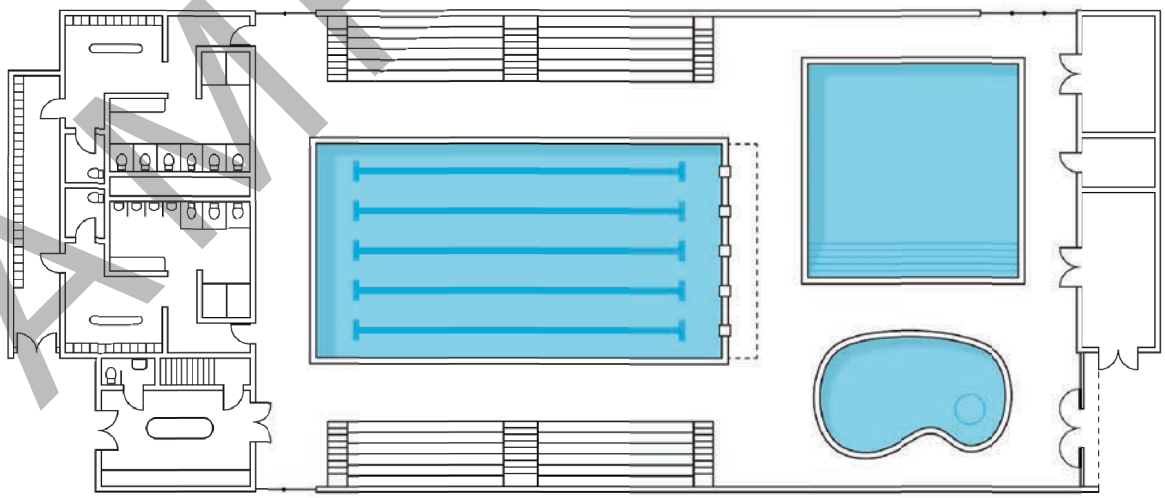

GRADE 7

UNIT

2

Teacher Resource Copy Masters

LESSON BLACKLINE MASTERS

address	title	students per copy	written on?	requires cutting?	card stock recommended?	color paper recommended?	used multiple times?	used as a center material?
Activity Grade7.2.9.2	Biking and Rain Cards	4	no	yes	no	no	no	no
Activity Grade7.2.10.3	Matching Tables and Graphs Cards	2	no	yes	no	yes	no	no
Activity Grade7.2.13.2	Tables, Graphs, and Equations Handout, Spanish	3	no	yes	no	no	yes	no
Activity Grade7.2.14.2	Creating and Representing Situations Handout	1	yes	no	no	no	no	no

Info Gap: Biking and Rain

Problem Card 1

Mai and Noah each leave their houses at the same time and ride their bikes to the park.

1. For each person, write an equation that relates the distance they travel and the time.
2. Who will arrive at the park first?

Info Gap: Biking and Rain

Data Card 1

- Noah lives 1 kilometer farther away from the park than Mai does.
- Mai lives 8,000 meters from the park.
- Noah lives 9,000 meters from the park.
- Mai and Noah each bike at a constant speed.
- Mai bikes 250 meters per minute.
- Noah bikes 300 meters per minute.

Info Gap: Biking and Rain

Problem Card 2

A slow, steady rainstorm lasted all day. The rain was falling at a constant rate.

1. Write an equation that relates how much rain has fallen and how long it has been raining.
2. How long will it take for 5 cm of rain to fall?

Info Gap: Biking and Rain

Data Card 2

- The rain storm lasted for 24 hours.
- 9.6 centimeters of rain fell during the storm.
- The rate of the rainfall was 2 millimeters of rain every 30 minutes.
- There are 10 millimeters in 1 centimeter.
- There are 60 minutes in 1 hour.

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Matching Tables and Graphs

1. When you buy two shirts, you get the second one at half-price.

x	*y*
1	10
2	15
3	25
4	30
5	40
6	45

Matching Tables and Graphs

2. These t-shirts cost $8 each.

x	*y*
1	8
2	16
4	32
5	40
7	56
8	64

Matching Tables and Graphs

3. In the science lab there is a chart to help students convert temperatures from Celsius to Fahrenheit.

x	*y*
0	32
10	50
20	68
30	86
40	104
50	122

Matching Tables and Graphs

4. She is planning on serving $\frac{1}{3}$ cup of rice per person.

x	*y*
1	$\frac{1}{3}$
2	$\frac{2}{3}$
3	1
4	$1\frac{1}{3}$
5	$1\frac{2}{3}$
6	2

Matching Tables and Graphs

5. Entrance to a state park costs $6.00 per vehicle, plus $2.00 per person in the vehicle. One vehicle can seat 6 people.

x	*y*
1	8
2	10
3	12
4	14
5	16
6	18

Matching Tables and Graphs

6. He measures the time that has elapsed after each lap he runs.

x	*y*
1	2
2	4
3	7
4	9
5	11
6	15

Matching Tables and Graphs

7. A recipe uses 2 tablespoons of honey for every 8 cups of flour.

x	*y*
2	8
3	12
6	24
7	28
10	40
12	48

Matching Tables and Graphs

8. She is filling her fish tank with water. The chart shows the gallons of water after so many minutes.

x	*y*
1	1.6
2	3.2
3	4.8
4	6.4
5	8.0
6	9.6

Matching Tables and Graphs

9. Ten empty aluminum cans weigh 0.15 kg.

x	*y*
10	0.15
20	0.30
25	0.375
40	0.60
50	0.75
60	0.90

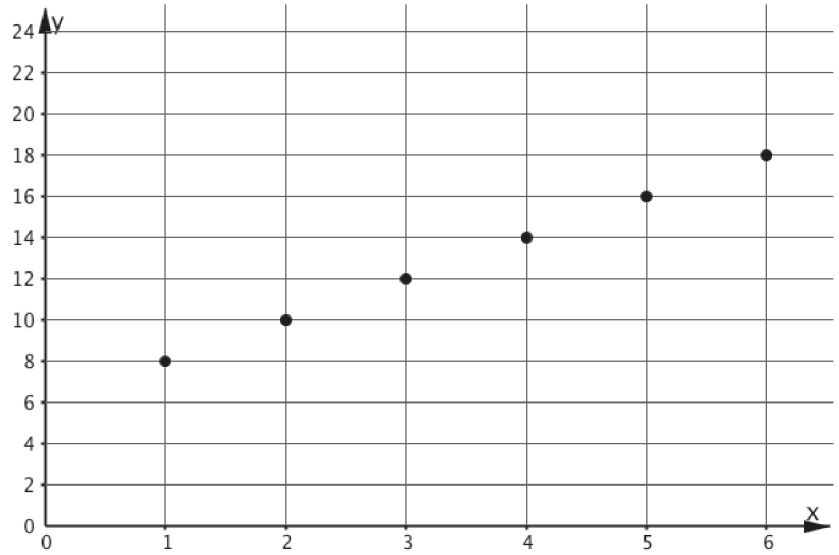
Matching Tables and Graphs

10. The area of a square is the square of the side length.

x	*y*
1	1
2	4
4	16
5	25
7	49
10	100

Matching Tables and Graphs

A.



Matching Tables and Graphs

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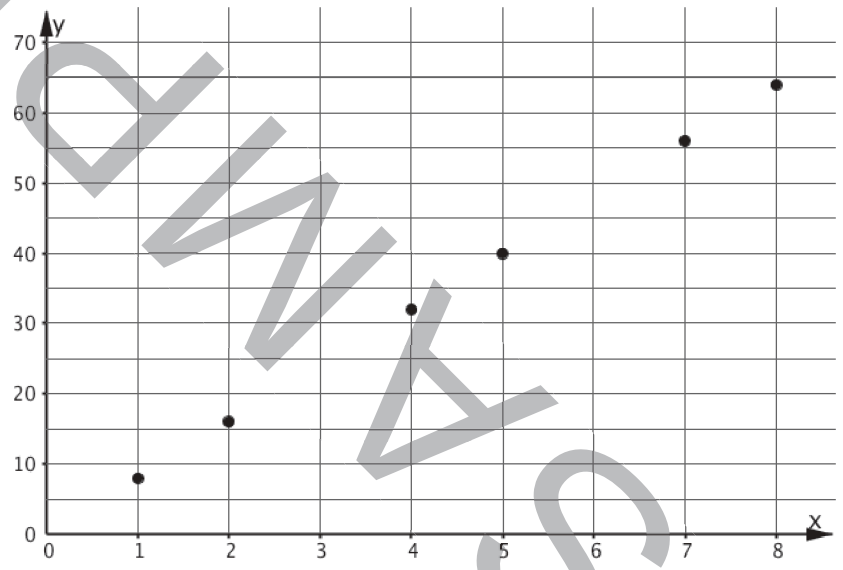

Matching Tables and Graphs

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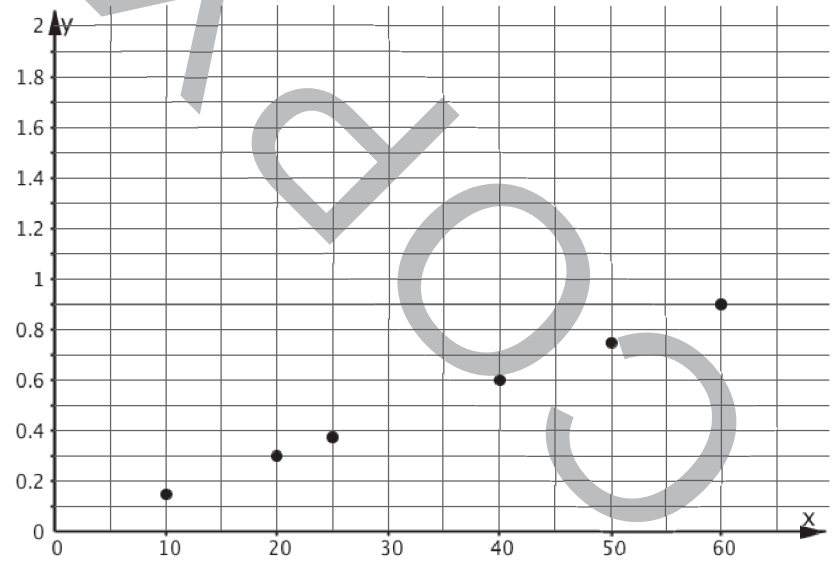

Matching Tables and Graphs

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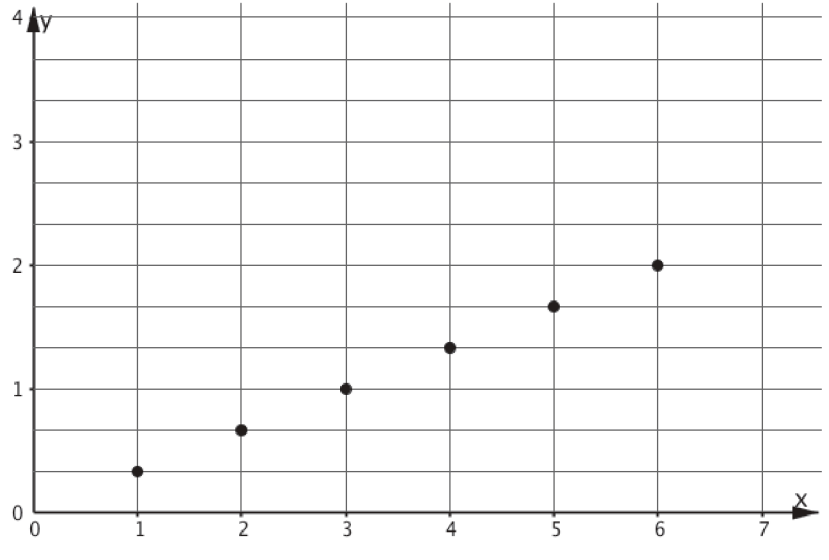

Matching Tables and Graphs

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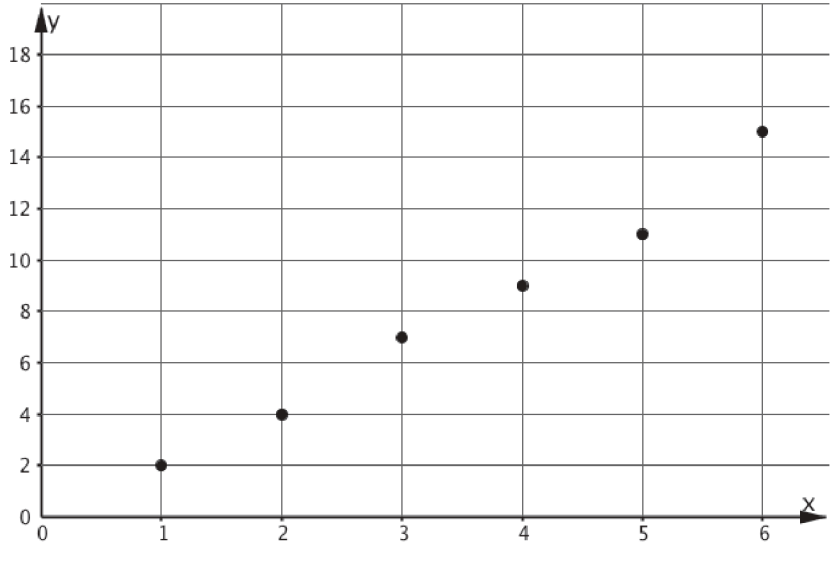

Matching Tables and Graphs

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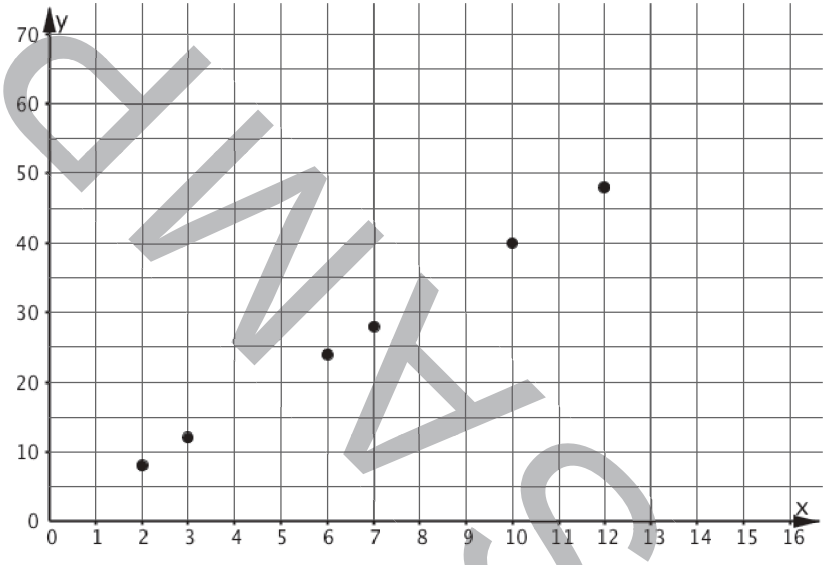
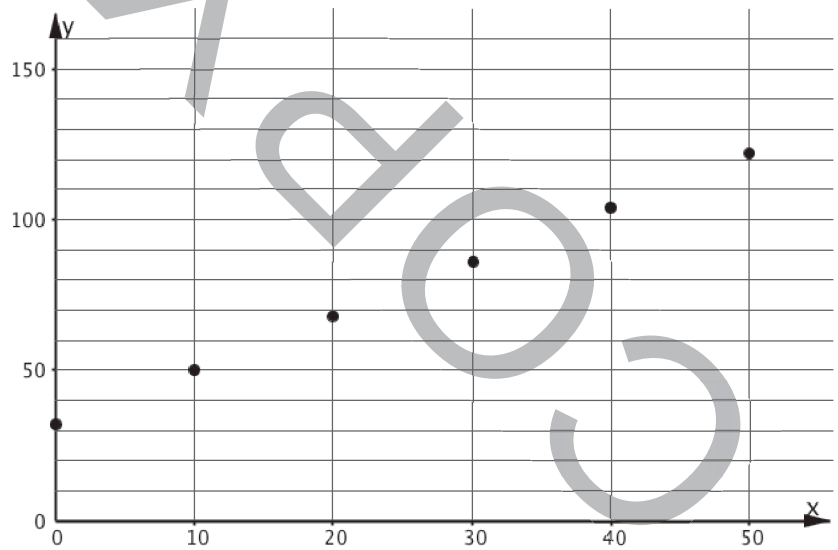


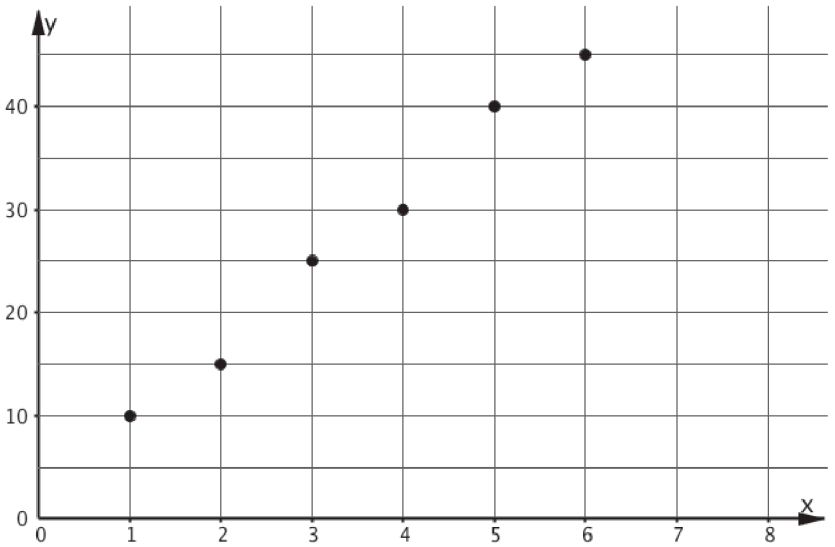
Matching Tables and Graphs

G.



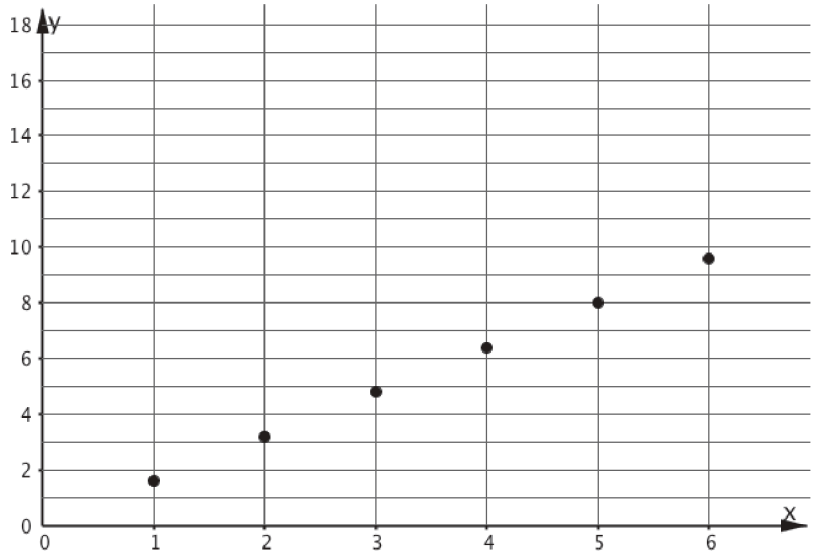
Matching Tables and Graphs

H.



Matching Tables and Graphs

I.



Matching Tables and Graphs

J.

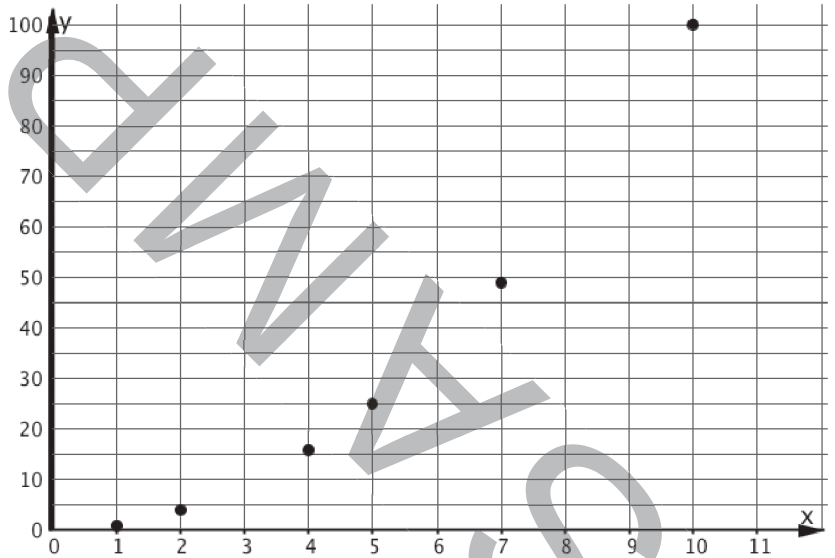


Table for Point A

x	*y*
0	0
1	0.4
2	0.8
3	1.2
4	1.6
5	2
6	2.4
7	2.8
8	3.2
9	3.6
10	4

Table for Point B

x	*y*
0	0
1	1.25
2	2.5
3	3.75
4	5
5	6.25
6	7.5
7	8.75
8	10
9	11.25
10	12.5

Table for Point C

x	*y*
0	0
1	0.625
2	1.25
3	1.875
4	2.5
5	3.125
6	3.75
7	4.375
8	5
9	5.625
10	6.25

Examples of Proportional Relationships

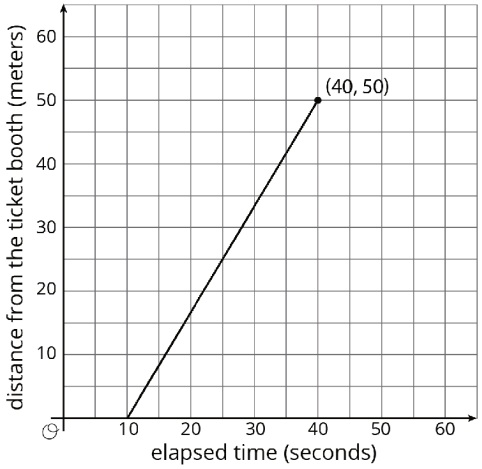
In this unit, we've seen many different types of situations that involve proportional relationships between two quantities. Here are some examples.

Type of Situation	Examples from this Unit	Sample Sentences
Unit Price	• Some T-shirts cost $8 each. • Blueberries cost $6 per pound.	_____ costs _____ per _____.
Constant Rate	• It took Priya 5 minutes to fill a cooler with 8 gallons of water. • Andre made 10 balloon animals in 3 minutes.	It takes _____ to make _____.
Constant Speed	• Mai rides her bike at a speed of 250 meters per minute. • It took a plane 1.5 hours to fly 915 miles, at a constant speed.	_____ was traveling at a constant speed of _____ per _____.
Recipes	• To make coco bread, a bakery uses 200 milliliters of coconut milk for every 360 grams of flour. • To make a certain shade of purple paint, we mix 1 part red paint with 4 parts blue paint.	To make _____, you mix _____ with _____.
Servings	• 6 spring rolls will serve 3 people. • 4 seagulls ate 10 pounds of garbage.	_____ will serve _____.
Unit Conversion	• 1 inch is equal to 2.54 centimeters. • The weight of 10 aluminum cans is 0.16 kilograms. • In Canadian coins, 16 quarters is equal in value to 2 toonies.	_____ is equal to _____.
Ratios	• There are 3 apples for every 1 orange in the fruit salad.	There are _____ for every _____.

Note: These are just examples of possible types of situations to help you brainstorm. You do not have to use one of these situations.

Examples of Nonproportional Relationships

Here are examples of relationships that are not proportional that we've seen in this unit.

<table>
<tr><th>Type of Situation</th><th colspan="2">Examples from this Unit</th></tr>
<tr><td>Price</td><td>Entrance to a state park costs $6 per vehicle, plus $2 per person in the vehicle.</td><td>Here are the prices for smoothies at Smoothie Shop B.
<table><tr><th>smoothie size (oz)</th><th>price ($)</th></tr><tr><td>8</td><td>6</td></tr><tr><td>12</td><td>8</td></tr><tr><td>16</td><td>10</td></tr></table></td></tr>
<tr><td>Speed</td><td>Han was running laps around the track. The coach recorded his times at the end of laps 2, 4, 6, and 8, as shown in this table.
<table><tr><th>distance (laps)</th><th>time (minutes)</th></tr><tr><td>2</td><td>4</td></tr><tr><td>4</td><td>9</td></tr><tr><td>6</td><td>15</td></tr><tr><td>8</td><td>23</td></tr></table></td><td>Mai left the ticket booth 10 seconds later than Tyler. She caught up with Tyler just as he arrived at the bumper cars.
 
</td></tr>
<tr><td>Formulas</td><td>The equation $F = \frac{9}{5}C + 32$ shows the relationship where F represents degrees Fahrenheit and C represents degrees Celsius.</td><td>The equation $A = 6s^2$ shows the relationship where s represents the side length of a cube and A represents the cube's surface area.</td></tr>
</table>

GRADE 7

UNIT

3

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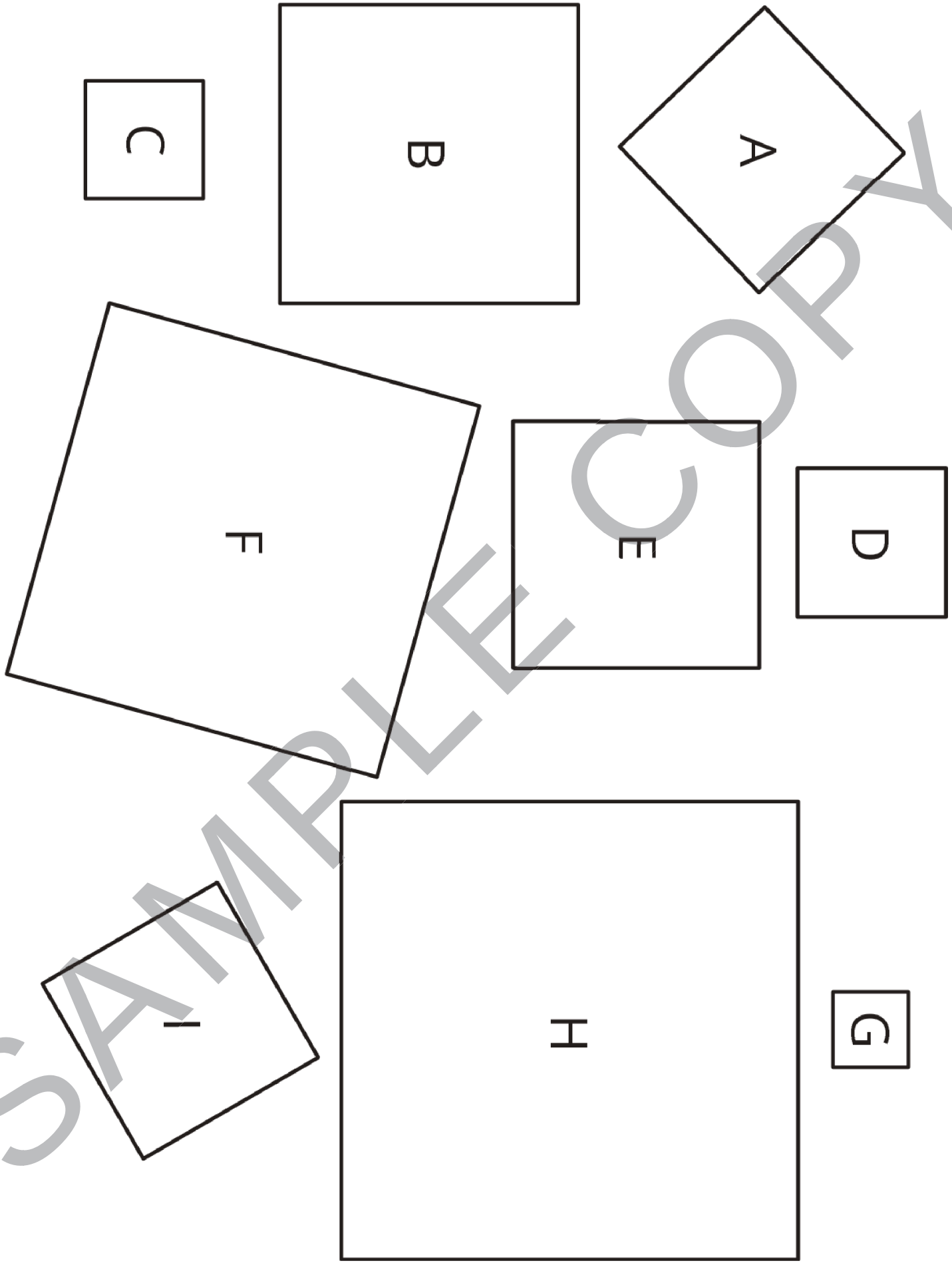
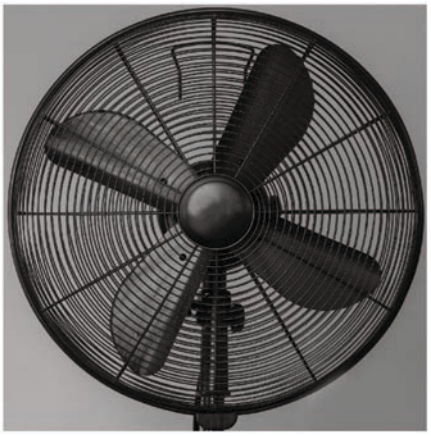
Activity Grade7.3.1.2	Perimeter of a Square Handout	1	no	no	no	no	no	no
Activity Grade7.3.2.2	Sorting Round Objects Cards	2	no	yes	no	yes	no	no
Activity Grade7.3.5.4	Units of Length Reference Sheet	2	no	no	no	no	yes	no
Activity Grade7.3.7.2	Estimating Areas of Circles Handout	12	yes	no	no	no	no	no
Activity Grade7.3.8.2	Making a Polygon out of a Circle Cutouts	12	yes	yes	no	no	no	no
Activity Grade7.3.10.2	Circle Problems Cards	2	no	yes	no	yes	no	no
Activity Grade7.3.10.3	Visual Display of Circle Problem Handout	10	yes	no	no	no	no	no
Activity Grade7.3.10.5	Merry-go-round and Unicycle Cards	4	no	yes	no	no	no	no



Sorting Round Objects



Fan Cover

Sorting Round Objects

Wagon Wheel

Sorting Round Objects

Utility Hole Cover

Sorting Round Objects

Airplane Propeller

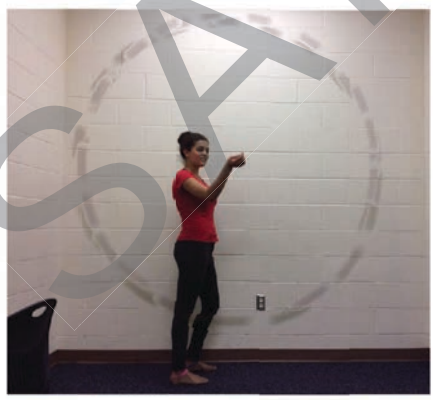
Sorting Round Objects

Bike Wheel

Sorting Round Objects

Glow Necklace

Sorting Round Objects



Yo-yo Trick

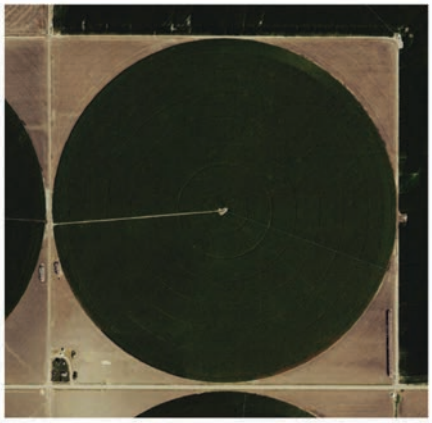
Sorting Round Objects

Dartboard

Sorting Round Objects

Grill

Sorting Round Objects



Center Pivot Irrigation

Sorting Round Objects

Boiled Egg

Sorting Round Objects

Basketball

Sorting Round Objects

Clock

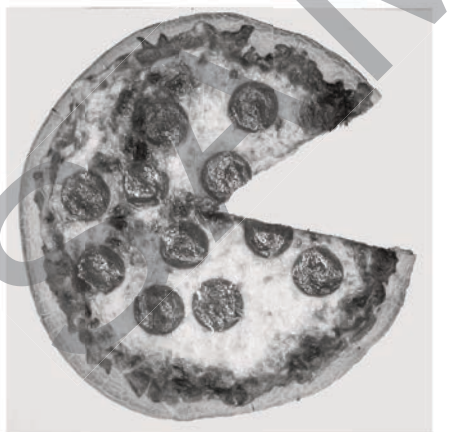
Sorting Round Objects

Rug

Sorting Round Objects

Platter

Sorting Round Objects



Pizza

Sorting Round Objects

Speedometer

Sorting Round Objects

Orange Slice

Units of Length Reference Sheet

Customary Units

1 foot (ft) = 12 inches (in)
1 yard (yd) = 36 inches
1 yard = 3 feet
1 mile = 5,280 feet

Metric Units

1 centimeter (cm) = 10 millimeters (mm)
1 meter (m) = 1,000 millimeters
1 meter = 100 centimeters
1 kilometer (km) = 1,000 meters

Equal Lengths in Different Systems

1 inch = 2.54 centimeters	1 centimeter ≈ 0.39 inch
1 foot ≈ 0.30 meter	1 meter ≈ 39.27 inches
1 mile ≈ 1.61 kilometers	1 kilometer ≈ 0.62 mile

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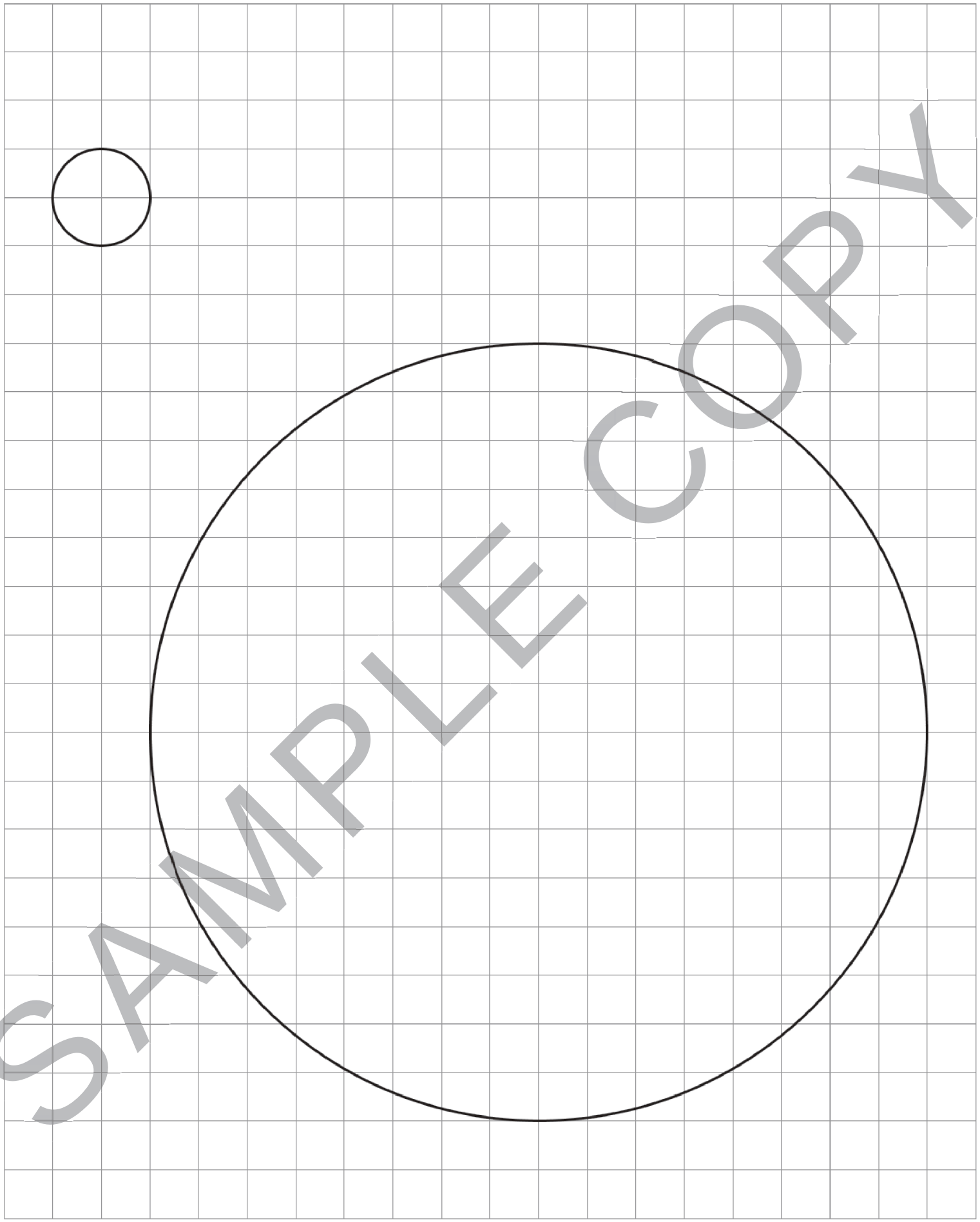
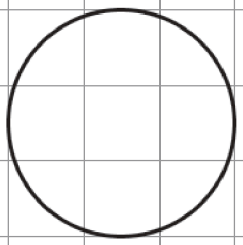
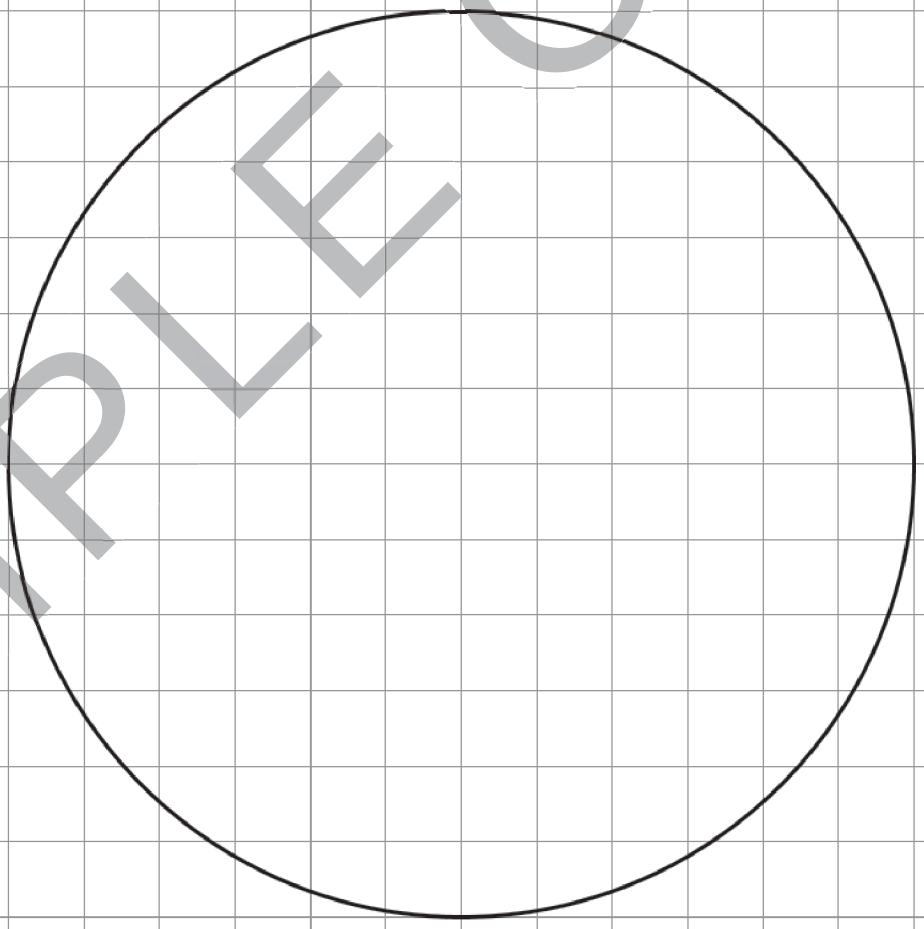
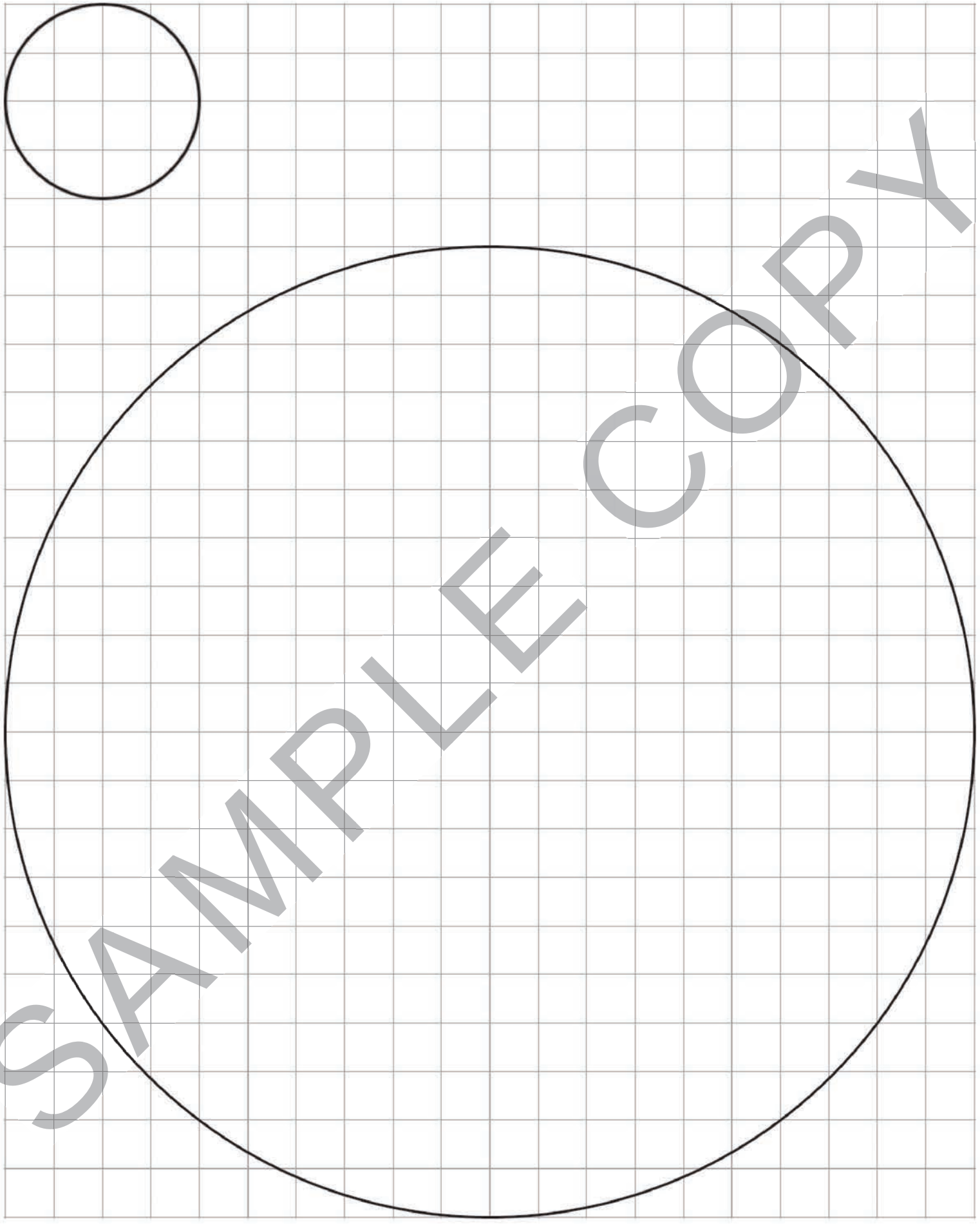
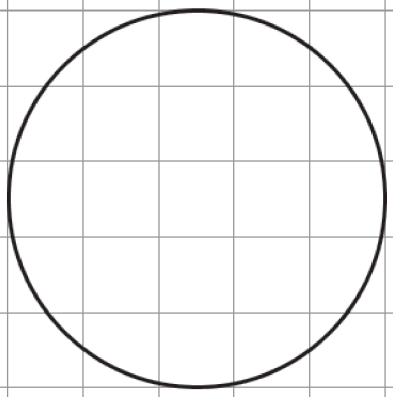
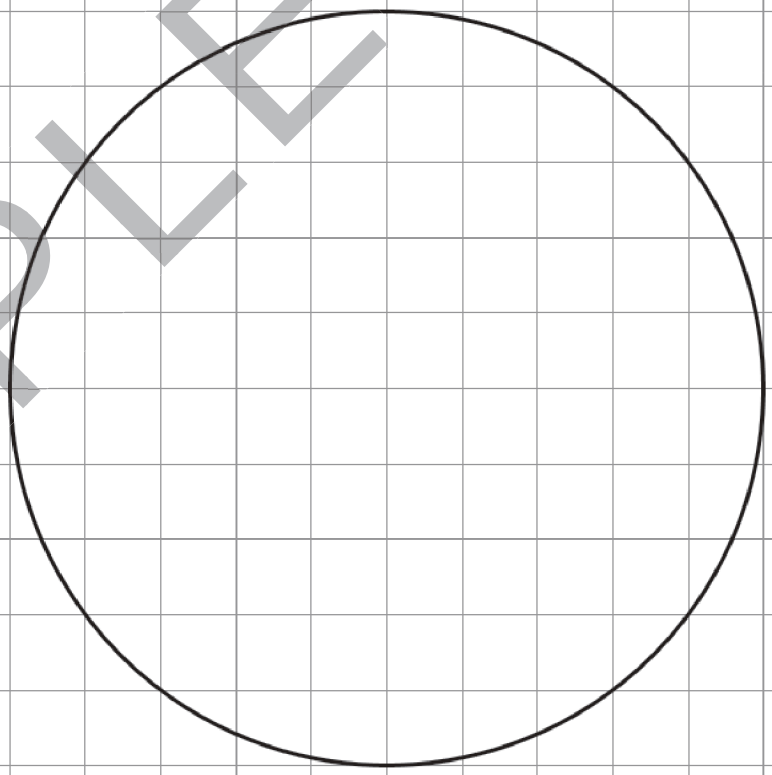


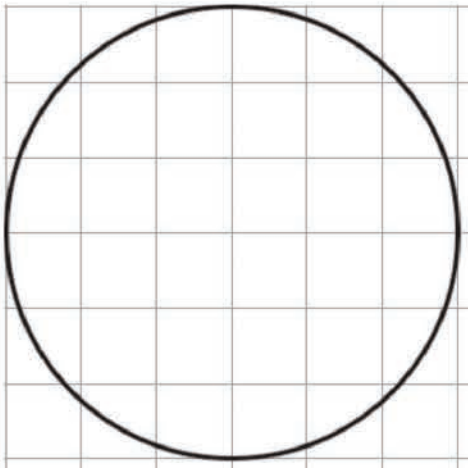


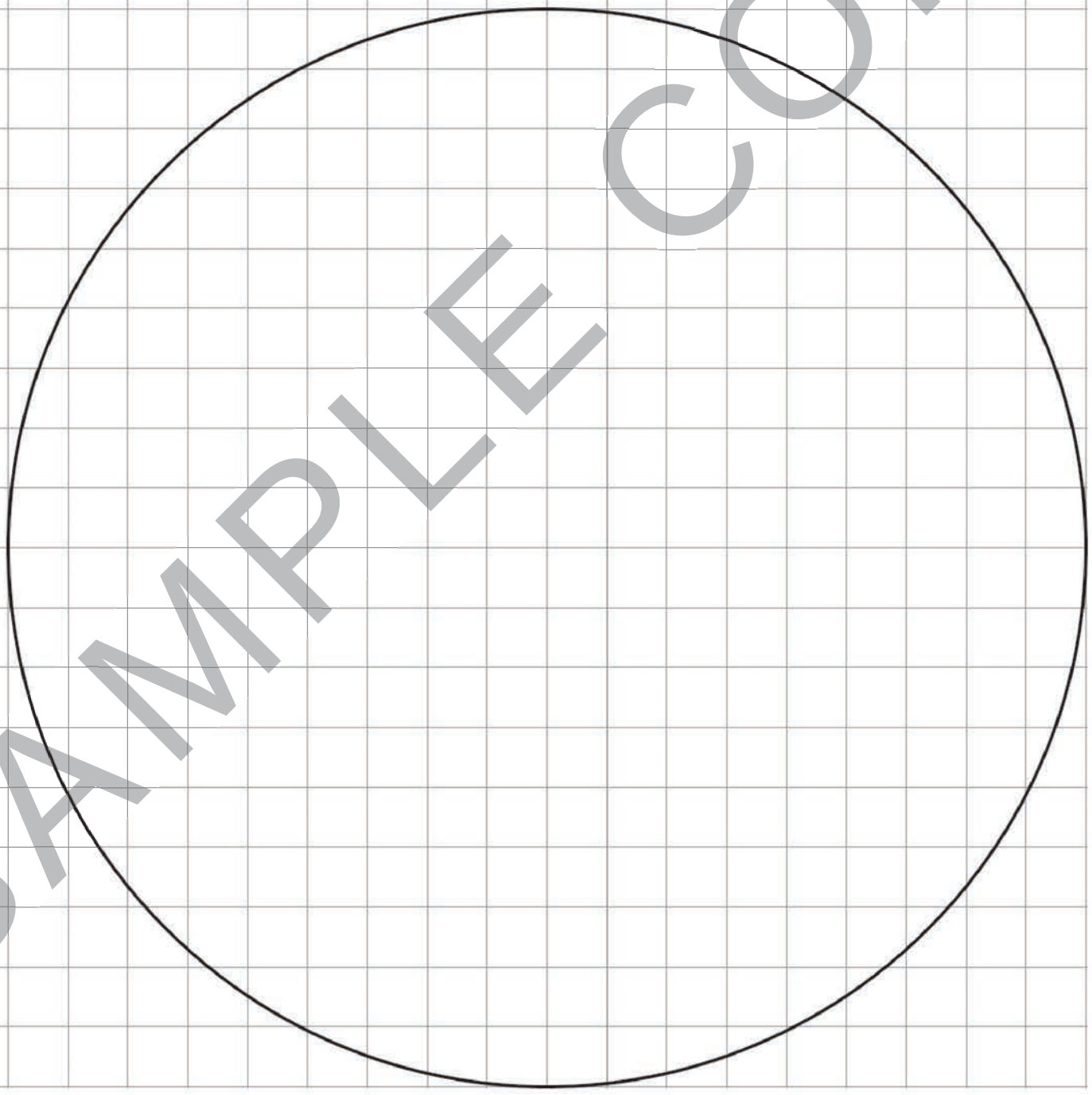


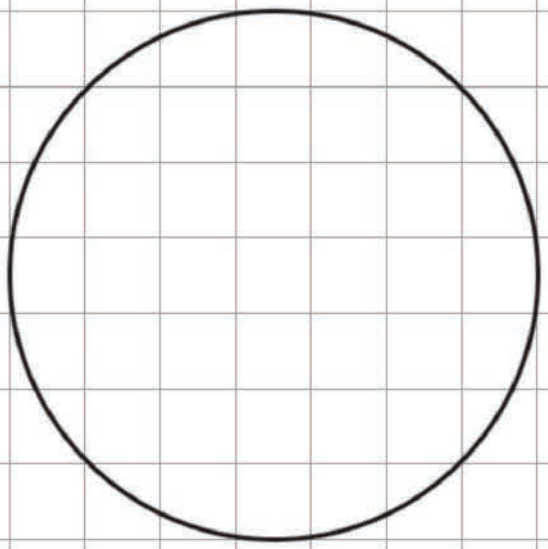


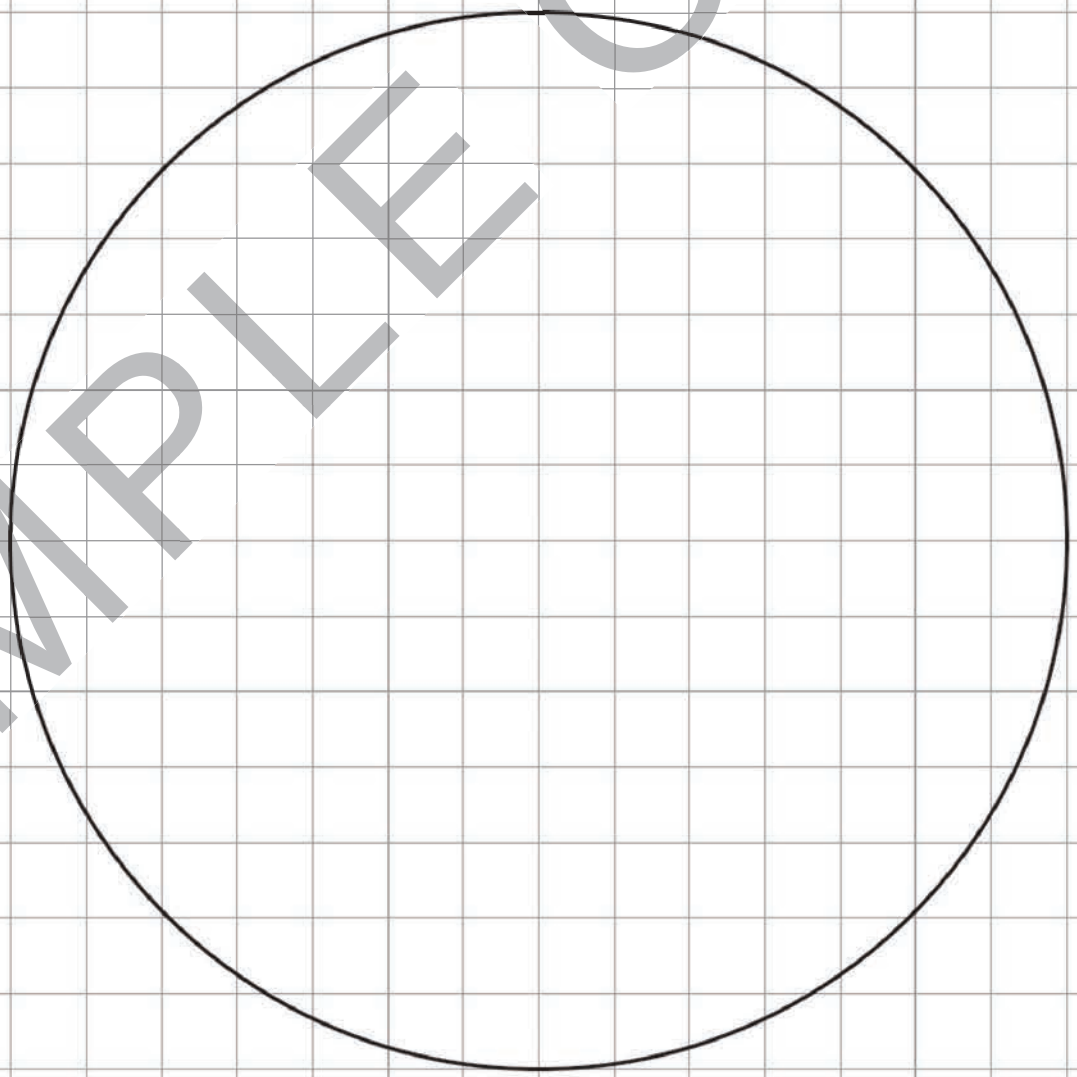




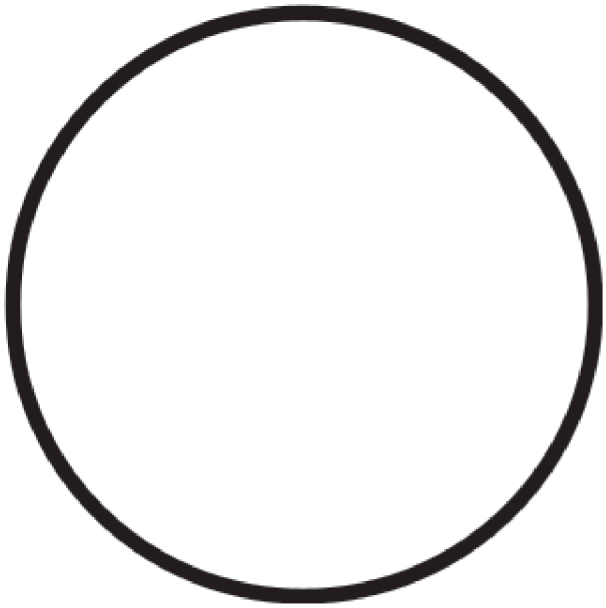


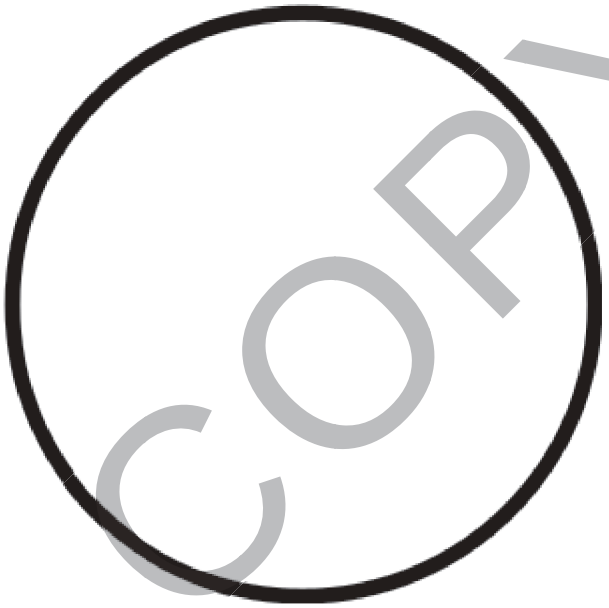




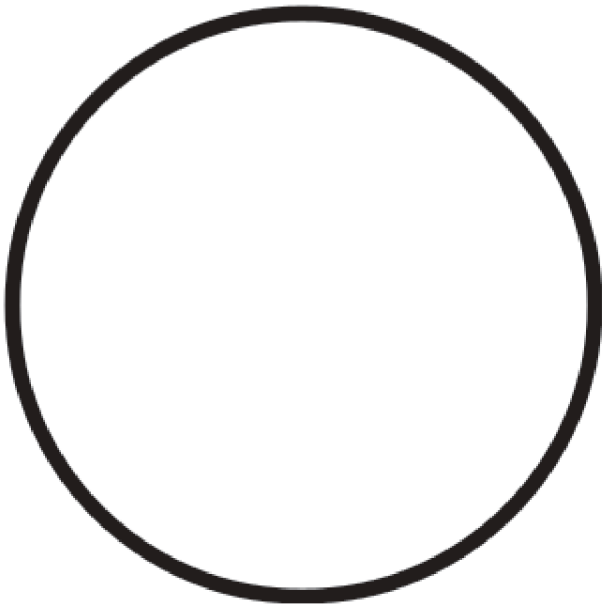


Pair of Smaller Circles

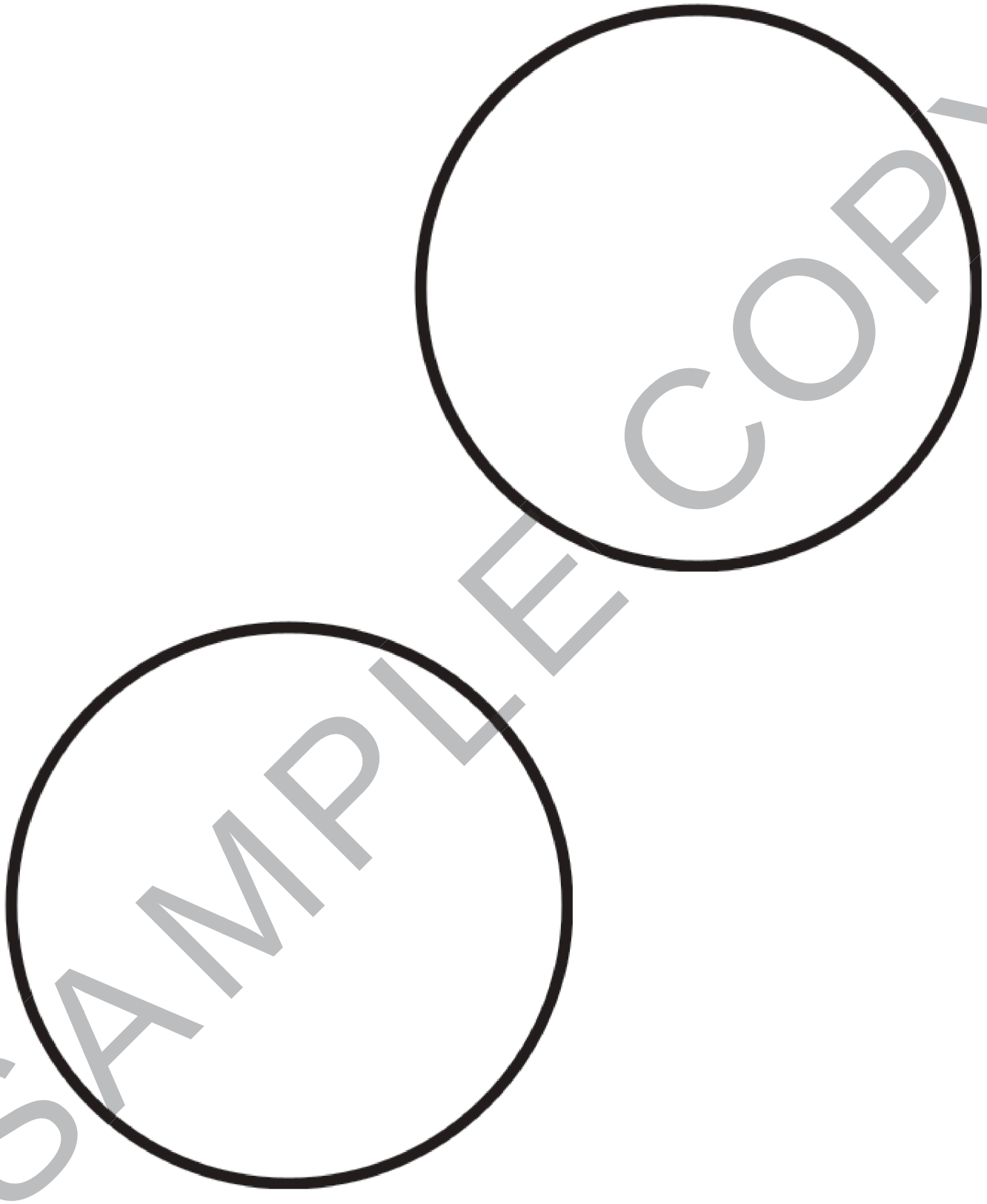




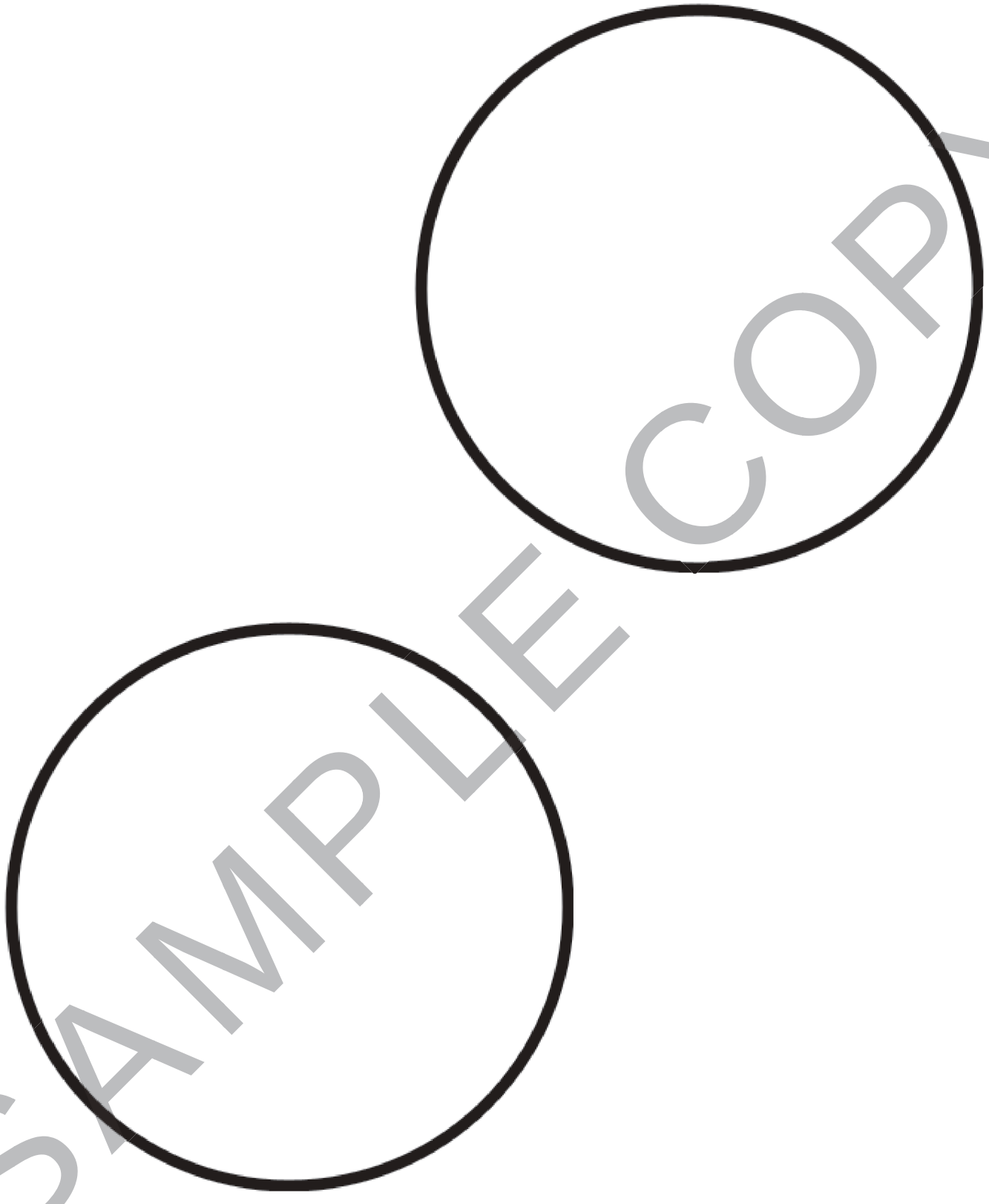
Pair of Smaller Circles



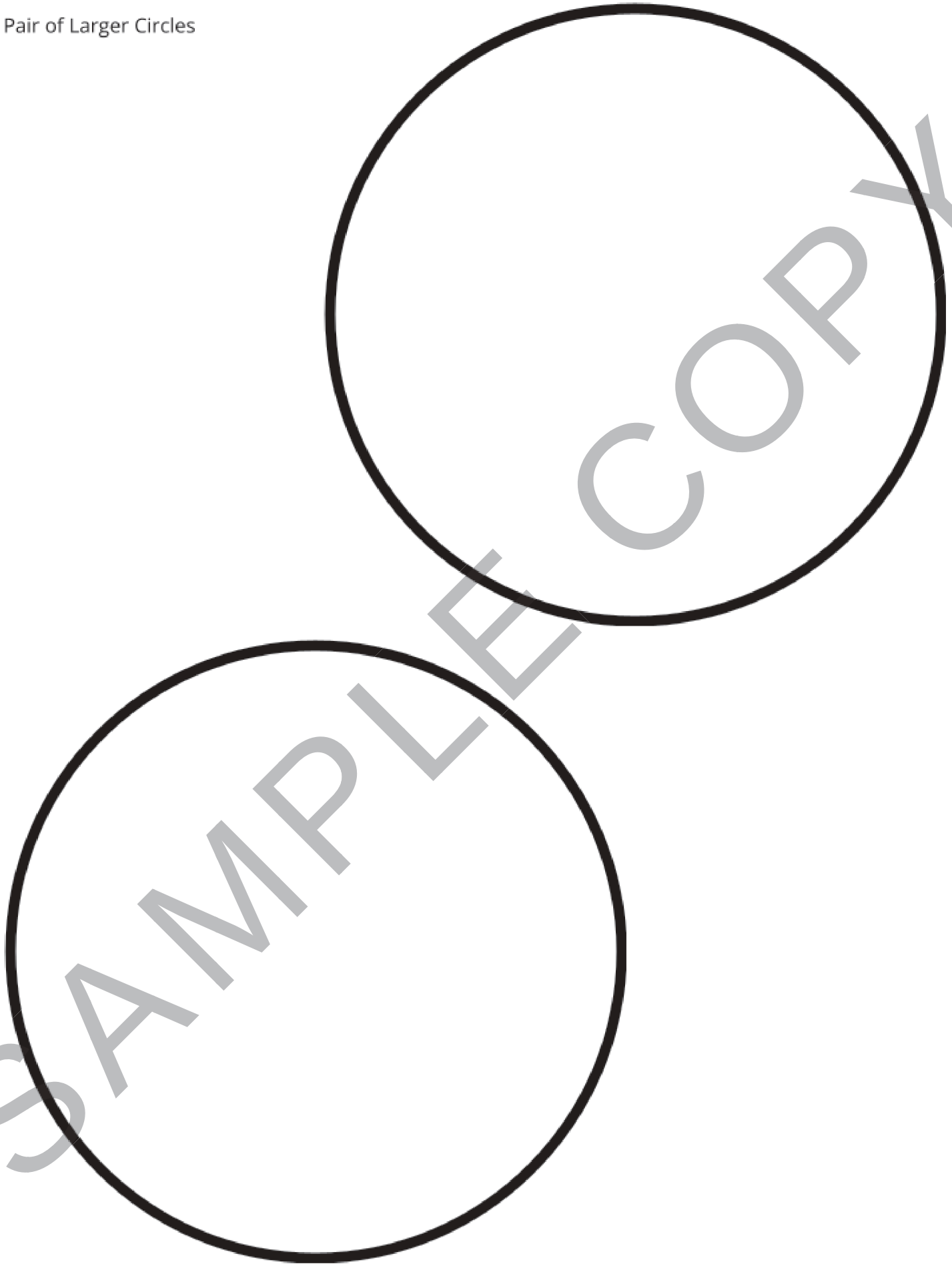
Pair of Medium Circles



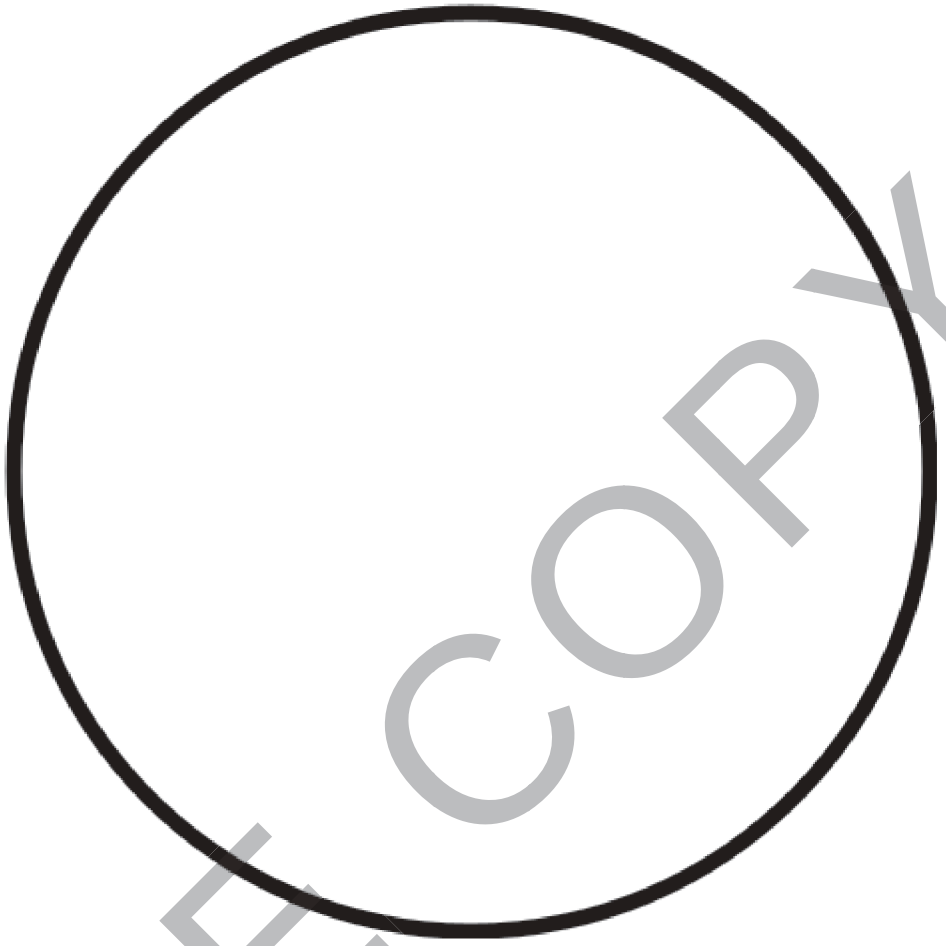
Pair of Medium Circles

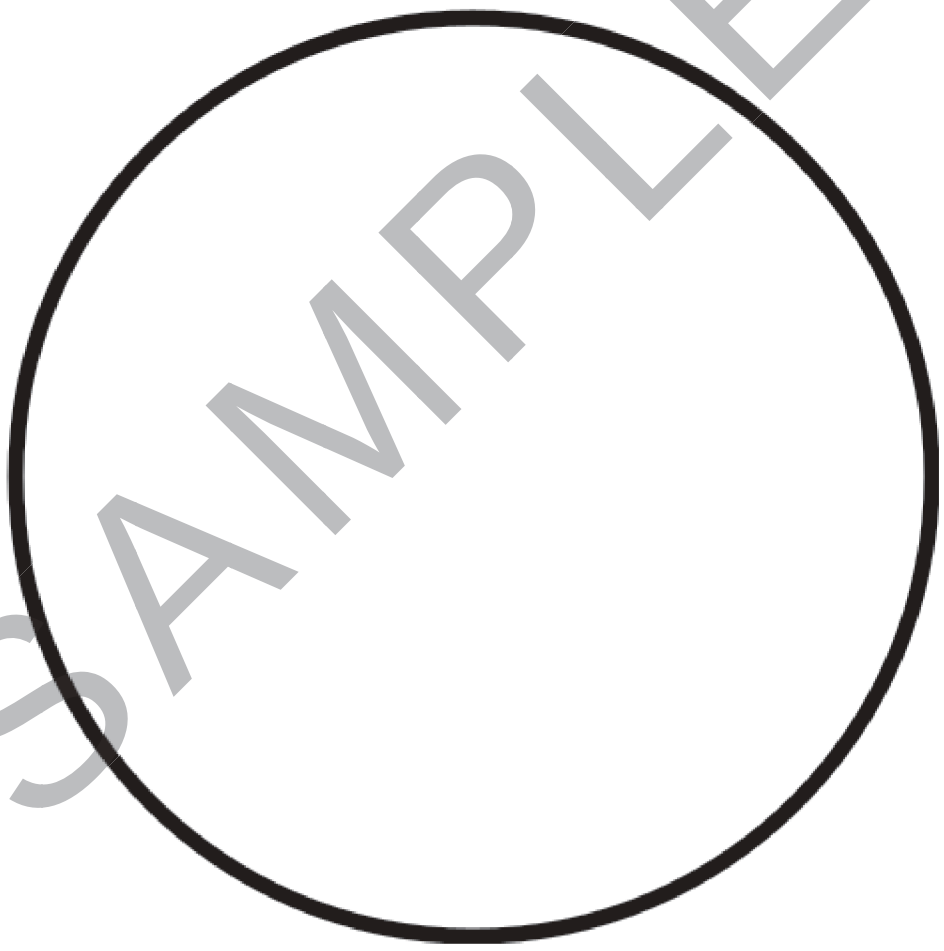


Pair of Larger Circles



Pair of Larger Circles





Card Sort: Circle Problems
Question 1

How much fabric is needed for a round tablecloth?

Card Sort: Circle Problems
Question 2

How fast do you go when riding on a Ferris wheel?

Card Sort: Circle Problems
Question 3

How much green space is there inside a traffic roundabout?

Card Sort: Circle Problems
Question 4

How many square inches of cheese fit on a slice of pizza?

Card Sort: Circle Problems
Question 5

How many times must a horse go around a horse walker to walk 1 mile?

Card Sort: Circle Problems
Question 6

How many feet are traveled by a person riding once around a merry-go-round?

Card Sort: Circle Problems
Question 7

How much room is there to put glue on the back of a paper circle?

Card Sort: Circle Problems
Question 8

How far does a unicycle move when the wheel makes 5 full rotations?

Problems Related to Circumference

Problems Related to Area of a Circle

Question 1:

How much fabric is needed for a round tablecloth?

Diagram (with estimated measurements):

Your thinking:

Answer (both in terms of π and as a decimal approximation):

Question 2:

How fast do you go when riding on a Ferris wheel?

Diagram (with estimated measurements):

Your thinking:

Answer (both in terms of π and as a decimal approximation):

Question 3:

How much green space is there inside a traffic roundabout?

Diagram (with estimated measurements):	Your thinking:

Answer (both in terms of π and as a decimal approximation):

Question 4:

How many square inches of cheese fit on a slice of pizza?

Diagram (with estimated measurements):

Your thinking:

Answer (both in terms of π and as a decimal approximation):

Question 5:

How many times must a horse go around a horse walker to walk 1 mile?

Diagram (with estimated measurements):

Your thinking:

Answer (both in terms of π and as a decimal approximation):

This page includes an additional set of info gap cards
to use as an optional demonstration.

Cards for the student activity are located on the following page.

Merry-go-round and Unicycle
Problem Card 0

Kiran is making circular stickers. How much room is there to spread glue on the backs of all the stickers in one set?

Merry-go-round and Unicycle
Data Card 0

- The circumference of each sticker is 8π cm.
- There are 5 stickers in a set.
- Kiran is making 10 sets of stickers.

Merry-go-round and Unicycle
Problem Card 0

Kiran is making circular stickers. How much room is there to spread glue on the backs of all the stickers in one set?

Merry-go-round and Unicycle
Data Card 0

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Merry-go-round and Unicycle
Problem Card 0

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Merry-go-round and Unicycle
Data Card 0

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- There are 5 stickers in a set.
- Kiran is making 10 sets of stickers.

Merry-go-round and Unicycle

Problem Card 1

Elena is seated on the edge of a merry-go-round. Her friend pushes it around 3 complete times and then a little bit more. How far does Elena travel?

Merry-go-round and Unicycle

Data Card 1

- The radius of the merry-go-round is 5 ft.
- The diameter of the merry-go-round is 10 ft.
- The area of the merry-go-round is 25π ft^2.
- The "little bit more" was $\frac{1}{5}$ of a rotation.
- In total, she completed 3.2 rotations.

Merry-go-round and Unicycle

Problem Card 2

Clare is riding a unicycle. How far does she travel when the wheel makes 4 full rotations?

Merry-go-round and Unicycle

Data Card 2

- The area of the unicycle wheel is 100π in^2.

Merry-go-round and Unicycle

Problem Card 1

Elena is seated on the edge of a merry-go-round. Her friend pushes it around 3 complete times and then a little bit more. How far does Elena travel?

Merry-go-round and Unicycle

Data Card 1

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- The diameter of the merry-go-round is 10 ft.
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Merry-go-round and Unicycle

Problem Card 2

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Merry-go-round and Unicycle

Data Card 2

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