

Name _____



Let's get ready for grade 7 math!

Due: Wednesday, August 26, 2026 (1st day of school)



**Choose ONE OR MORE of the following options to complete this summer.
Doing this work will help you to feel ready to start Grade 7 math!**

☐ **Option 1:**

Complete the pages labeled PREREQUISITE in this packet. These pages will help you review finding ratios so that you will feel ready to start your first Grade 7 math unit on scale drawings.

☐ **Option 2:**

Complete the pages labeled GRADE 7 WORK in this packet. These pages are on the topic you'll be learning in your first Grade 7 math unit on scale drawings.

After you complete the above options, you can also work on your **iReady Math My Path** online lessons. iReady lessons do not work on a phone, so you will need access to a computer. The computers at the Chelsea Public Library are an option.

Go your school's launch page to access i-Ready:

<https://browne.chelseaschools.com/s-launcher>

<https://clark.chelseaschools.com/s-launcher>

<https://wright.chelseaschools.com/s-launcher>

Questions? Email your school's math coach.

Browne Middle School: flickj@chelseaschools.com

Clark Avenue Middle School: burucas@chelseaschools.com

Wright Science and Technology Academy: weaverj@chelseaschools.com

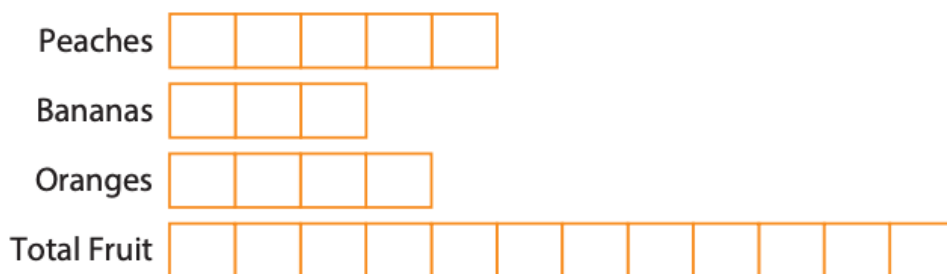
PREREQUISITE

Study the example problem showing how to use ratios to compare two quantities. Then solve problems 1–6.

Example

Noelle buys 5 peaches, 3 bananas, and 4 oranges at a local fruit stand to make fruit punch. What is the ratio of the number of bananas to the number of peaches she bought?

A tape diagram can help you compare the quantities.



There are 3 bananas and 5 peaches.

The ratio of bananas to peaches can be written as 3 to 5, $3 : 5$, or $\frac{3}{5}$.

- 1 What is the ratio of peaches to oranges?

- 2 What is the ratio of the number of bananas to the total number of pieces of fruit?

- 3 Write a ratio in words to compare a whole to a part. Then write the ratio using numbers.

Vocabulary

ratio a comparison of two quantities.

PREREQUISITE

Solve.

- 4** In Ellen's sixth-grade class, there are 14 boys and 11 girls. Write each ratio using numbers in two ways.

Number of girls to number of boys

Number of boys to total number of students

Total number of students to number of girls

Number of boys to number of girls

- 5** For every 4 miles that Pedro runs, he walks 3 miles. Tell whether each statement is *True* or *False*.

- | | | |
|--|-------------------------------|--------------------------------|
| a. The ratio of miles walked to miles run is 4 : 3. | ☐ True | ☐ False |
| b. The ratio of miles walked to total miles is 3 : 7. | ☐ True | ☐ False |
| c. The ratio of miles run to total miles is 7 to 3. | ☐ True | ☐ False |
| d. The ratio of total miles to miles run is $\frac{7}{4}$. | ☐ True | ☐ False |
| e. The ratio of miles run to miles walked is 4 to 3. | ☐ True | ☐ False |

- 6** For sixth-grade field day, 6 students in Alice's class are playing volleyball, 5 students are playing soccer, and 9 students are playing basketball. Alice said that the ratio of students playing volleyball to basketball was 6 : 9. Alex said that the ratio of students playing basketball to volleyball was $\frac{9}{6}$. Who is correct? Explain.

PREREQUISITE

A cafeteria worker knows that it takes 3 bottles of juice to serve a table of 18 students. How many bottles of juice are needed for 24 students? How many bottles of juice are needed for 42 students?

1. Explain how this picture represents the above problem: _____



2. Complete this table to show how much juice you need for different numbers of students:

Number of Students	6	12	18				
Bottles of Juice	1	2	3	4	5	6	7

3. How many bottles of juice are needed for **24 students**? _____ bottles

What about **42 students**? _____ bottles

4.

Mrs. Silva orders 5 pizzas for every 20 students working on the campus clean-up. How many pizzas should she order if 36 students participate? How many pizzas should she order if 48 students participate?

PREREQUISITE

5.

David wants to fill his backyard swimming pool. His garden hose delivers 40 gallons in 5 minutes. How many gallons of water will be in the pool after 20 minutes? After 1 hour?

6.

Coach McCarthy bought 6 soccer balls for \$150. Which table correctly shows equivalent ratios for this cost?

A

Number of Balls	1	2	3	4	5	6
Cost	\$0	\$30	\$60	\$90	\$120	\$150

B

Number of Balls	1	2	3	4	5	6
Cost	\$25	\$50	\$75	\$100	\$125	\$150

C

Number of Balls	1	2	3	4	5	6
Cost	\$20	\$40	\$60	\$80	\$100	\$150

D

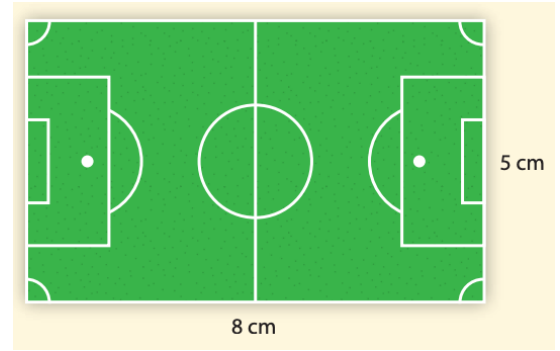
Number of Balls	1	2	3	4	5	6
Cost	\$120	\$126	\$132	\$138	\$144	\$150

Kristin chose **C** as the correct answer. How did she get this answer?

GRADE 7 WORK

1. This is a scale drawing of a soccer field.

A length of 1 cm in the drawing corresponds to 15 yards in the actual field.



- a. Complete the table for the scale. Then use the table to answer questions b and c.

The scale is **1 cm : 15 yd.**

Distance on the scale drawing (cm)	1	2	3	4	5	6	7	8
Distance on the actual field (yd)	15	30	45					

- b. The width of the field in the **drawing** is **5 cm**. What is the **actual width** of the field? _____ yd
- c. The length of the field in the **drawing** is **8 cm**. What is the **actual length** of the field? _____ yd

2. You are enlarging a 4-inch by 6-inch photo so that it will have a height of 24 inches.



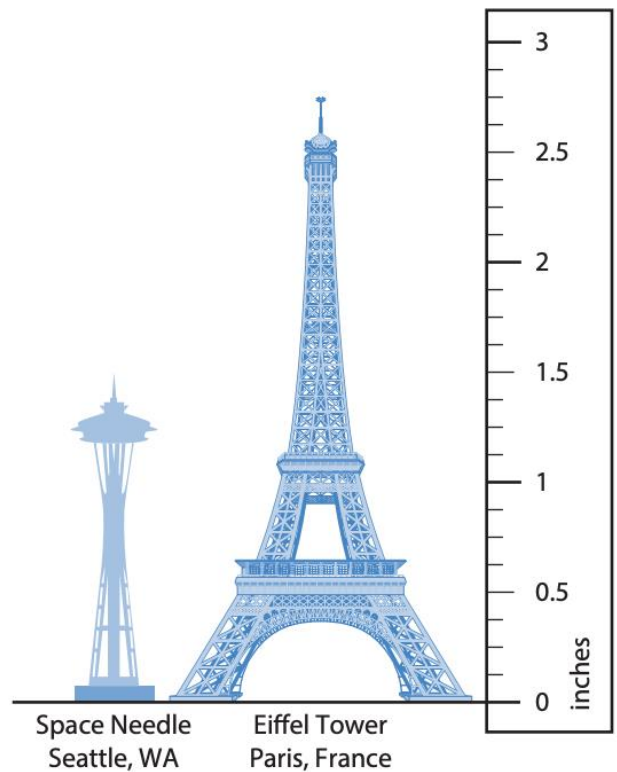
- a. Complete the table to show how this same enlargement would change other measurements:

Original measurement (inches)	1	2	3	4	5	6
Enlarged measurement (inches)						24

- b. The **original** height has a **base of 4 inches**. What will the **enlarged base** measure? _____ in

GRADE 7 WORK

3. Leo made a model of the Statue of Liberty. He used a scale of **2 cm : 3 m**. The statue of Liberty is 93 m tall. **How tall is Leo's model?**
4. A car is 12.8 feet long. Jane uses a scale of **1 in. : 2ft.** to make a model of the car. **How long is her model?**
5. Miko drew this scale drawing of two famous structures. Miko used a scale of **1 in. : 400 ft.**
- a. Use Miko's drawing and scale to find the approximate **actual height of the Space Needle**.
- b. Next find the **approximate actual height of the Eiffel Tower**.



GRADE 7 WORK

Study the example below. Then solve problems 14–16.

Example

The Laerdal Tunnel in Norway is the world's longest tunnel. It is 24.4 km long. An engineer plans to make a scale model of the tunnel using the scale 3 cm : 4 km. What will the length of the model be?

Look at how you can solve the problem by writing an equation to show the proportional relationship.

$$\begin{array}{l} \frac{3 \times 6.1}{4 \times 6.1} = \frac{x}{24.4} \\ 3(6.1) = 18.3 \end{array} \quad \begin{array}{l} \text{drawing (cm)} \rightarrow \frac{3}{4} = \frac{x}{24.4} \leftarrow \text{drawing (cm)} \\ \text{actual (km)} \rightarrow \frac{3}{4} = \frac{x}{24.4} \leftarrow \text{actual (km)} \end{array}$$

Solution The length of the model will be 18.3 cm.



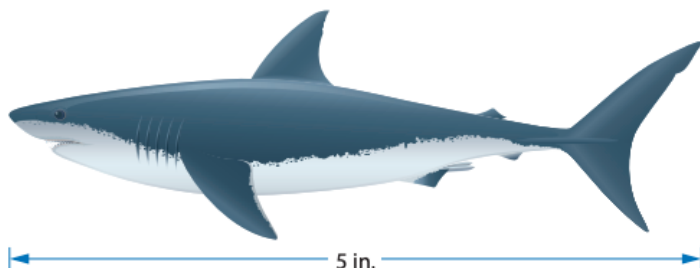
The student wrote a proportion and found a ratio equivalent to $\frac{3}{4}$ with a denominator of 24.4.



Pair/Share

How could you tell if your answer is reasonable?

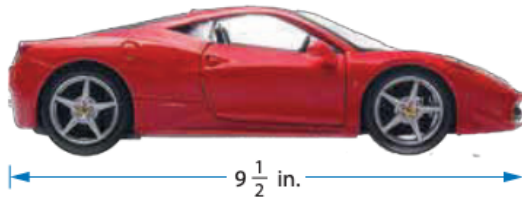
- 14** The aquarium has a scale model of a great white shark for sale in their gift shop. If the scale of the model is 2 in. : 7 ft, what is the actual length of the shark?



What does 5 inches represent?

GRADE 7 WORK

- 15** The scale used to make a scale model of a car is 1 : 18. The length of the model is $9\frac{1}{2}$ inches. How many feet long is the actual car?



The length of the model is given in inches but the question asks for an answer in feet.

Pair/Share

If the scale were 1 : 24, would the model car be larger or smaller than this one?

Solution _____

- 16** A floor plan of a house was drawn using a scale of 1 cm = 1.5 m. The family room in the plan is pictured as 5 cm by 4 cm. In square meters, what is the actual area of the family room? Circle the letter of the correct answer.

- A** 20
- B** 27
- C** 30
- D** 45



Would drawing a diagram help?

Pair/Share

If you know the length and width of a scale model or drawing, what other information do you need to find the actual length and width?

Liz chose **C** as the correct answer. How did she get that answer?
