

Scale Sleuth

Read map scales to measure real distances.

SS.3.G.1.6 "Use maps to identify different types of scale to measure distances between two places."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Read the passage. Circle each name of a scale type and underline the numbers that show how a map length matches a real distance.

Measuring With Map Scales

- ① Maps make large places fit on a small page. A map scale tells how a length on paper matches a real distance. One kind is a statement scale. It uses words, such as "1 inch equals 2 miles." If two towns are 3 inches apart on that map, their real distance is 6 miles. Measure the map distance first, then use the scale.
- ② Another kind is a ratio scale. It compares the same unit on the map and in real life. A scale of 1:50,000 means 1 centimeter on the map stands for 50,000 centimeters on the ground. Since 100,000 centimeters equal 1 kilometer, 2 centimeters on this map equal 1 kilometer. Keep the units the same before you calculate.
- ③ A bar scale is a small line marked with real distances. It can still work if a map is made larger or smaller, because you measure the printed bar. On a trail map, one whole bar may stand for 4 kilometers. If a path measures one and one-half bars, the path is 6 kilometers long. Choose a scale that matches the map, and write the distance unit in your answer.

2

ANSWER WITH EVIDENCE

Use the passage

- 1

A map says, "1 inch equals 5 miles." What type of scale is this?
- 2

On a map with a scale of 1:50,000, a lake measures 4 centimeters. How long is the lake in kilometers?
- 3

One bar on a trail map stands for 4 kilometers. A route measures two and one-half bars. How long is the route?
- 4

A map has been copied smaller. Which type of scale can you measure to find a distance, and why?

3

YOUR TURN

Your own words

Create three scale examples for a pretend park map. Use a statement scale, a ratio scale, and a bar scale. In each row, show a map length and its matching real distance.

SCALE TYPE	SCALE WRITTEN	MAP LENGTH	REAL DISTANCE

PART 1 • READ AND MARK

Read the passage. Circle each name of a scale type and underline the numbers that show how a map length matches a real distance. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	A map says, "1 inch equals 5 miles." What type of scale is this?	statement scale
2	On a map with a scale of 1:50,000, a lake measures 4 centimeters. How long is the lake in kilometers?	2 kilometers
3	One bar on a trail map stands for 4 kilometers. A route measures two and one-half bars. How long is the route?	10 kilometers
4	A map has been copied smaller. Which type of scale can you measure to find a distance, and why?	A bar scale, because you can measure the printed bar after the map is made larger or smaller.

PART 3 • YOUR TURN (SAMPLE ANSWER)

SCALE TYPE	SCALE WRITTEN	MAP LENGTH	REAL DISTANCE
Statement scale	1 inch equals 2 miles	3 inches	6 miles
Ratio scale	1:100,000	2 centimeters	2 kilometers
Bar scale	1 bar equals 4 kilometers	1 1/2 bars	6 kilometers

Accept equivalent correct scale examples with matching units and accurate distances. For a ratio scale, accept any ratio that compares the same unit on the map and on the ground.