

Scale Sleuths

Use a map scale to find real distances.

3.4.B “use a scale to determine the distance between places on maps and globes; and”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline every sentence that gives a scale. Circle the unit of real distance in each scale statement.

Measuring Pine Island

- ① A map uses a scale to show how a short line stands for a real distance. For example, a scale might say 1 centimeter equals 4 kilometers. Measure the route on the map, then multiply by 4. A 2-centimeter route would represent 8 kilometers in the real world.
- ② On the Pine Island map, 1 centimeter equals 6 kilometers. The table lists routes measured with a ruler. A route can curve, so measure along the road rather than straight across water. Multiply each map length by 6 to find the actual distance between the two places.

ROUTES ON THE PINE ISLAND MAP

Route	Map Length
Harbor to Lighthouse	2 cm
School to Orchard	3 cm
Fire Station to Lake	4 cm
Museum to Stadium	5 cm

- ③ Scales can use miles or kilometers. Always read the unit before you write an answer. If a scale says 1 inch equals 10 miles, a 4-inch path is 40 miles. A globe also has a scale, although its curved surface can make measuring a route harder.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What real distance does 1 centimeter represent on the Pine Island map?

2 How far is the Harbor from the Lighthouse? Show the multiplication you used.

3 How far is the Fire Station from the Lake? Show the multiplication you used.

4 How many kilometers farther is the Museum from the Stadium than the School is from the Orchard?

3 YOUR TURN _____ Your own words

Write a map-scale problem of your own. Choose a scale in kilometers, give a route length from 2 to 9 centimeters, and calculate the real distance.

PART 1 • READ AND MARK

Underline every sentence that gives a scale. Circle the unit of real distance in each scale statement. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What real distance does 1 centimeter represent on the Pine Island map?	1 centimeter represents 6 kilometers.
2	How far is the Harbor from the Lighthouse? Show the multiplication you used.	$2 \times 6 = 12$, so the distance is 12 kilometers.
3	How far is the Fire Station from the Lake? Show the multiplication you used.	$4 \times 6 = 24$, so the distance is 24 kilometers.
4	How many kilometers farther is the Museum from the Stadium than the School is from the Orchard?	Museum to Stadium: $5 \times 6 = 30$ kilometers. School to Orchard: $3 \times 6 = 18$ kilometers. The Museum-to-Stadium route is 12 kilometers farther.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Scale: 1 cm equals 7 km. Trailhead to Cabin measures 5 cm on my map. $5 \times 7 = 35$, so the real distance is 35 km.

Accept any reasonable scale, route length from 2 to 9 centimeters, and correct multiplication with kilometers labeled. The student may use invented place names.