

Measure, Read, Solve

Use units, time, and data displays to solve problems.

GRADE 5 • 5.MDR.7

5.MDR.7 "Solve problems involving customary measurements, metric measurements, and time and analyze graphical displays of data to answer relevant questions."

NAME _____

DATE _____

CHOOSE THE RIGHT UNIT

Change measurements to the same unit before you add or subtract. When you read a graph, check what each symbol or mark stands for, then use the data to compare amounts.

WORKED EXAMPLE

A board is 6 feet 8 inches long. How many inches long is the board?

1. 6 feet = 6×12 inches = 72 inches.

2. 72 inches + 8 inches = 80 inches.

Answer: 80 inches

PRACTICE 6 problems

1 How many inches are in 4 yards?

ANSWER _____

2 A jug holds 5 liters 300 milliliters of juice. How many milliliters is that?

ANSWER _____

3 A movie starts at 1:25 p.m. and ends at 3:55 p.m. How long is the movie?

ANSWER _____

4 Use this bar graph. Each ■ = 5 points. Game Points Ava: ■■■■ Ben: ■■■■■■ Cora: ■■■■ How many more points did Ben score than Cora?

ANSWER _____

5 Use this line plot. Each X stands for 1 plant. Plant Heights in Inches 10 | X 10 1/2 | XX 11 | X 11 1/2 | X How many plants are taller than 10 inches?

ANSWER _____

6 One banner is 7 meters 35 centimeters long. Another banner is 4 meters 50 centimeters long. What is their total length?

ANSWER _____

APPLY IT Show your work

- 1** Maya begins basketball practice at 4:45 p.m. and finishes at 7:15 p.m. She takes a 20-minute snack break. How long does Maya actually practice?

WORK SPACE

ANSWER _____

- 2** Use this bar graph. Each ■ = 5 centimeters. Paper Airplane Flight Distances Falcon: ■■■■■■ Comet: ■■■■■ Orbit: ■■■■■■■■ How much farther did Orbit's plane fly than Comet's plane?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Use this bar graph. Each ■ = 125 meters. Bike Club Laps Nia: ■■■■ Omar: ■■■■■■ Priya: ■■■■■ How many meters did all three riders cycle? Did they cycle more than, less than, or exactly 2 kilometers altogether? Explain your reasoning.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	How many inches are in 4 yards?	144 inches
2	A jug holds 5 liters 300 milliliters of juice. How many milliliters is that?	5,300 milliliters
3	A movie starts at 1:25 p.m. and ends at 3:55 p.m. How long is the movie?	2 hours 30 minutes
4	Use this bar graph. Each ■ = 5 points. Game Points Ava: ■■■■■ Ben: ■■■■■■ Cora: ■■■■ How many more points did Ben score than Cora?	15 points
5	Use this line plot. Each X stands for 1 plant. Plant Heights in Inches 10 X 10 1/2 XX 11 X 11 1/2 X How many plants are taller than 10 inches?	4 plants
6	One banner is 7 meters 35 centimeters long. Another banner is 4 meters 50 centimeters long. What is their total length?	11 meters 85 centimeters

PART 2 • APPLY IT

- 2 hours 10 minutes** The time from 4:45 p.m. to 7:15 p.m. is 2 hours 30 minutes. Subtract the 20-minute break to get 2 hours 10 minutes.
- 20 centimeters** Orbit has 9 symbols, or 45 centimeters, and Comet has 5 symbols, or 25 centimeters. The difference is 20 centimeters.

CHALLENGE

4 + 7 + 5 = 16 laps. 16 * 125 meters = 2,000 meters, so they cycled exactly 2 kilometers.

Accept equivalent time wording, such as 2 h 30 min. Require units in measurement answers, and accept 2,000 meters or 2 kilometers for the challenge total.