

Metric Mission

Convert lengths across metric units.

GRADE 5 • 5.MG.1.c.i

5.MG.1.c.i "Given the equivalent metric measure of one unit, in a contextual problem, determine the equivalent measurement within the metric system: length (millimeters, centimeters, meters, and kilometers);"

NAME _____

DATE _____

CHOOSE THE UNIT SIZE

Use these metric facts: 1 km = 1,000 m, 1 m = 100 cm = 1,000 mm, and 1 cm = 10 mm. When you change to a smaller unit, multiply. When you change to a larger unit, divide.

WORKED EXAMPLE

Change 7 m to centimeters.

1. $1 \text{ m} = 100 \text{ cm}$.

2. $7 \times 100 = 700$.

3. $7 \text{ m} = 700 \text{ cm}$.

Answer: 700 cm

PRACTICE 6 problems

1 Change 3,000 mm to meters.

ANSWER _____

2 Change 85 cm to millimeters.

ANSWER _____

3 Change 6 km to meters.

ANSWER _____

4 Change 420 cm to meters.

ANSWER _____

5 Change 9,000 m to kilometers.

ANSWER _____

6 Change 125 cm to millimeters.

ANSWER _____

APPLY IT Show your work

- 1** A running app shows that a fun run is 2.5 km long. How many meters is the fun run?

WORK SPACE

ANSWER _____

- 2** Mia uses 180 cm of cord to make friendship bracelets. How many millimeters of cord does she use?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A wildlife club hikes 4 km 250 m on a trail. How many centimeters do they hike? Show how you convert both parts of the distance.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Change 3,000 mm to meters.	3 m
2	Change 85 cm to millimeters.	850 mm
3	Change 6 km to meters.	6,000 m
4	Change 420 cm to meters.	4.2 m
5	Change 9,000 m to kilometers.	9 km
6	Change 125 cm to millimeters.	1,250 mm

PART 2 • APPLY IT

1. **2,500 m** Multiply 2.5 by 1,000 because each kilometer has 1,000 meters.
2. **1,800 mm** Multiply 180 by 10 because each centimeter has 10 millimeters.

CHALLENGE

425,000 cm. 4 km = 400,000 cm and 250 m = 25,000 cm, so 400,000 cm + 25,000 cm = 425,000 cm.

Accept equivalent answers written with or without commas in whole numbers. For the challenge, accept correct work that converts kilometers and meters to centimeters before adding.