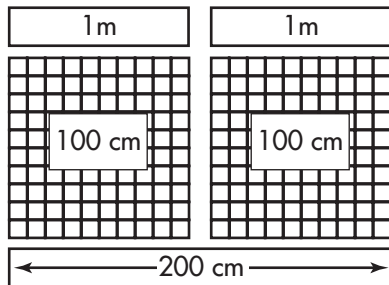# Converting Metric Units of Length

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How to change a length measurement from one metric unit to another:

Converting a length from a smaller to a larger metric unit

200 centimeters = _____ meters

Think: If I measure the same length using a larger unit, I will need a smaller number of units.
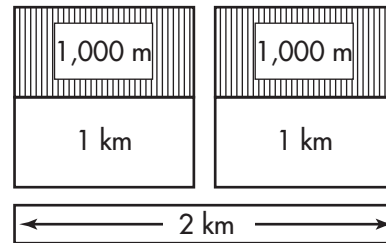
Operation: Divide.

You know 100 cm = 1 m.

Find 200 ÷ 100; 200 cm = 2 m

Converting a length from a larger to a smaller metric unit

2 kilometers = _____ meters

Think: If I measure the same length using a smaller unit, I will need a larger number of units.

Operation: Multiply.

You know 1 km = 1,000 m.

Find 2 × 1,000; 2 km = 2,000 m

Relationships Among Metric Units of Length					
Kilometer			Meter		Centimeter	Millimeter
1 km	=		1,000 m			
			1 m	=	100 cm	=	1,000 mm
					1 cm	=	10 mm

Complete.

1. 80 mm = _____ cm

2. 234 cm = _____ mm

3. 2 m = _____ mm

4. 14,000 mm = _____ m

5. Which is shorter, 60 meters or 600 centimeters? _____

6. Is 3.2 meters equal to 320 millimeters? Explain.

Converting Metric Units of Length

Convert each unit.

1. 25 m = _____ cm

2. 345 cm = _____ m

3. 4.5 m = _____ cm

4. 10 m = _____ mm

5. 987 mm = _____ cm

6. 4,000 mm = _____ cm

7. 4.2 km = _____ m

8. 3 km = _____ m

9. List three measurements with different units that are equal to 5 meters.

_____

Write >, =, or < for each ◯.

10. 12 cm ◯ 98 mm

11. 3 km ◯ 5,000 m

12. 800 cm ◯ 8 m

13. 38.5 mm ◯ 10 cm

14. 9,000 cm ◯ 2 km

15. 1,000,000 mm ◯ 100 m

Mount Saint Helens, a volcano, erupted on May 18, 1980.
Before the eruption, Mount St. Helens was 2,950 meters high.
After the eruption, it was 2,550 meters high.

16. What is the difference in height of Mount St. Helens before and after the eruption, expressed in meters?   _____

17. Before the eruption, how many kilometers high was Mount St. Helens?   _____

18. Which of the following is equal to 2 meters?

    A 200 mm   **B** 20 cm   **C** 200 km   **D** 2,000 mm

19. Explain how you would convert 4 m to millimeters.

_____

_____