Name _____ Practice Video Tools Games

Additional Practice 12-4
Convert Metric Units of Length

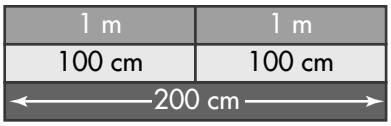
Another Look!

Remember:
1 km = 10^3 m = 1,000 m
1 m = 10^2 cm = 100 cm
1 m = 10^3 mm = 1,000 mm
1 cm = 10 mm

How to change from one metric unit of length to another:

Converting a length from a smaller to a larger metric unit:

200 centimeters = _____ meters

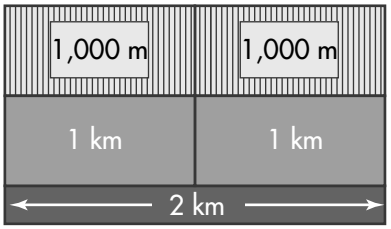


You know 10^2 cm = 1 m, so divide.

Find 200 ÷ 100; 200 cm = 2 m.

Converting a length from a larger to a smaller metric unit:

2 kilometers = _____ meters



You know 1 km = 10^3 m, so multiply.

Find 2 × 1,000; 2 km = 2,000 m.

In **1–6**, convert each unit of length.

1. 25 m = 2,500 cm

2. 345 cm = 3.45 m

3. 4.5 m = 450 cm

4. 10 m = 10,000 mm

5. 987 mm = 98.7 cm

6. 5 km = 5,000 m

In **7–9**, compare lengths. Write >, <, or = for each ◯.

7. 3 km (<) 5,000 m

8. 800 cm (=) 8 m

9. 38.5 mm (<) 10 cm

In **10** and **11**, complete each table to show equivalent measures.

10.

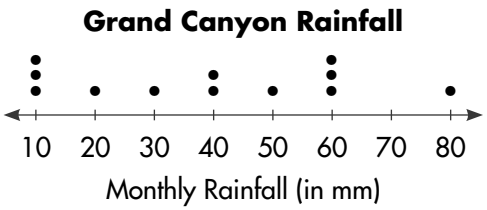
mm	5	85	900
cm	0.5	8.5	90

11.

km	0.4	7	25
m	400	7,000	25,000

12. Higher Order Thinking Park rangers at the North Rim of the Grand Canyon recorded the amounts of rainfall over 12 months. What was the total amount of rainfall in centimeters?

47 cm



13. What is the difference between the greatest and least amounts of monthly rainfall? Write an equation to model your work.

70 mm; 80 − 10 = 70

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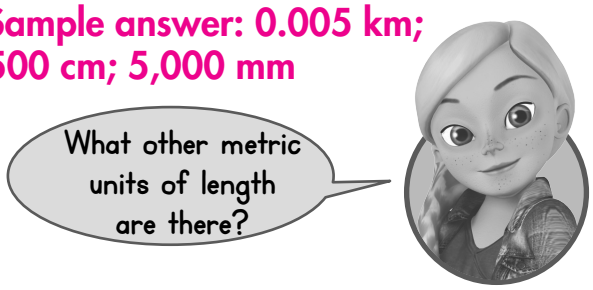
14. Arturo builds a cube that measures 5 inches on each side. What is the volume of Arturo's cube? Write an equation to show your work.

125 in^3; $5 \times 5 \times 5 = 125$

15. Use Structure List three measurements with different units that are equal to 5 meters.

Sample answer: 0.005 km; 500 cm; 5,000 mm



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16. If you walked all three trails in one day, how far would you walk? Write the answer in meters and in kilometers.

6,000 m; 6 km

DATA

Trail	Length
Spring Hollow	2 km
Brookside	2,400 m
Oak Ridge	1 km 600 m

17. Explain how you can move the decimal point to convert 3,200 meters to kilometers.

Sample answer: To convert meters to kilometers, you divide by 1,000. You can move the decimal point 3 places to the left in 3,200 m to get 3.2 km.

Assessment Practice

18. Cory finds a leaf that is 5 cm long. Which measurement is equivalent to 5 cm?

Ⓐ 0.05 mm
Ⓑ 0.5 mm
Ⓒ 50 mm
Ⓓ 500 mm

19. Which of these number sentences is **NOT** true?

Ⓐ 4,000,000 mm = 4 km
Ⓑ 300 mm > 3 cm
Ⓒ 5 m > 5,000 mm
Ⓓ 2,000 m < 20 km