Answers and talk notes

Ratio Reasoning: Convert Measurements Between Systems

What your student is learning

Tonight we convert measurements between the customary system (miles, pounds, quarts) and the metric system (kilometers, kilograms, liters).

Answers

Ask your student to explain before you look.

1. **A.** 5.08. 2 × 2.54 = 5.08, so 2 inches = 5.08 centimeters.
2. **C.** 12. 20 × 0.6 = 12, so 20 kilometers is about 12 miles.
3. **B.** 11. 5 × 2.2 = 11, so 5 kilograms is about 11 pounds.
4. **B.** 7.6. 2 × 3.8 = 7.6, so 2 gallons is about 7.6 liters.
5. **D.** 1 kilometer and 0.6 mile. 1 kilometer and 0.6 mile is rounded: 1 kilometer ≈ 0.6 mile.
6. **A.** 33. 10 × 3.3 = 33, so 10 meters is about 33 feet.

Talk about it

Is the number of miles bigger or smaller than the number of kilometers, and how do you know?

Home mission

Find a ruler with inches on one edge and centimeters on the other. Ask your student: which unit is longer? Link it to the road sign. A mile is longer than a kilometer. Should the number of miles be smaller or bigger?

When they are stuck, ask

- Which system is each measurement from?
- Which unit is bigger?
- Should your answer be a bigger or smaller number?

Try not to say

- Same number means same amount.
- Write = instead of ≈; it's close enough.
- Just guess which one is bigger.