Answers and talk notes

Determine the Whole Given the Part and Percent

What your student is learning

Tonight we work backwards: when we know a part and the percent that part represents, we find the whole amount it came from.

Answers

Ask your student to explain before you look.

1. **B.** 50. In a ratio table, multiply both terms by 10 to scale from 10% to 100%: 5 × 10 = 50.
2. **A.** 60. In a ratio table, scale from 50% to 100% by multiplying by 2: 30 × 2 = 60.
3. **D.** 80. In a ratio table, scale from 25% to 100% by multiplying both terms by 4: 20 × 4 = 80.
4. **C.** 4. In a ratio table, divide both terms by 2 to step down from 20% to 10%: 8 ÷ 2 = 4.
5. **B.** $60. In a ratio table, scale from 50% to 100% by multiplying by 2: $30 × 2 = $60.
6. **A.** 60. In a ratio table, step down to 10% by dividing by 3 (18 ÷ 3 = 6), then scale up to 100% by multiplying by 10 (6 × 10 = 60).

Talk about it

When the whole is missing, why do we divide by the decimal percent instead of multiplying?

Home mission

Pick any price on a receipt. Say, "This is 50% of the full price." Can your student find the full price out loud? Then try 25%.

When they are stuck, ask

- Which amount is the part, and which is missing?
- What is that percent as a decimal?
- Should the whole be bigger or smaller than the part?

Try not to say

- Multiply the part by the percent.
- Add the part and the percent.
- The whole is always 100 of something.