Answers and talk notes

Divide Whole Numbers by Fractions

What your student is learning

Tonight we learn a quick trick to divide a whole number by a fraction. It is called Keep, Change, Flip.

Answers

Ask your student to explain before you look.

1. **B.** 3/2. Flip the fraction: the top and bottom trade places, so the reciprocal of 2/3 is 3/2.
2. **A.** 6. Each whole holds 3 thirds, so 2 wholes hold 2 × 3 = 6 thirds.
3. **D.** 5 × 4/1. Keep the 5, change ÷ to ×, and flip 1/4 to 4/1: 5 × 4/1.
4. **A.** 14. Flip 1/2 to 2 and multiply: 7 × 2 = 14, since each whole holds 2 halves.
5. **B.** 12. Flip 2/3 to 3/2: 8 × 3/2 = 24/2 = 12.
6. **C.** 20. 5 ÷ 1/4 = 5 × 4 = 20 scoops, since each pound holds 4 quarter-pound scoops.

Talk about it

Are half-pound bags big or small? Should the store fill more than 4 bags, or fewer?

Home mission

Find a 1/2-cup scoop and a big bowl. Ask first: will it take more or fewer than 3 scoops to measure 3 cups? Then scoop rice or water and count.

When they are stuck, ask

- Which fraction do we flip — and which number stays the same?
- Once we flip, what multiplication problem do we have now?
- Should the answer be bigger or smaller than the whole number? Why?

Try not to say

- Flip the whole number too.
- Just multiply by the fraction without flipping it.
- Dividing always makes the answer smaller.