Answers and talk notes

Divide Mixed Numbers

What your student is learning

Tonight we divide mixed numbers, like 3 1/2. First we change each mixed number into an improper fraction, then we divide with Keep, Change, Flip.

Answers

Ask your student to explain before you look.

1. **B.** 7/3. 2 × 3 = 6, and 6 + 1 = 7, so 2 1/3 = 7/3.
2. **A.** 2 3/4. 11 ÷ 4 is 2 with 3 left over, so 11/4 = 2 3/4.
3. **C.** 2/5. Flip the top and bottom: the reciprocal of 5/2 is 2/5.
4. **D.** 6. 1 1/2 = 3/2, then 3/2 × 4/1 = 12/2 = 6.
5. **B.** 2. 3 1/2 = 7/2 and 1 3/4 = 7/4, so 7/2 × 4/7 = 28/14 = 2.
6. **C.** 6. 4 1/2 = 9/2, and 9/2 ÷ 3/4 = 9/2 × 4/3 = 36/6 = 6 pieces.

Talk about it

How many halves are in the 3 wholes of 3 1/2?

Home mission

Find a ruler. Measure a pencil to the nearest 1/2 inch. Ask: how many 1/2-inch pieces would it make? Guess first, then count the halves on the ruler.

When they are stuck, ask

- Before we divide, did we change the mixed number into a fraction?
- To convert, multiply the whole by the bottom, then add the top. What do we get?
- Now which fraction do we flip to divide?

Try not to say

- Divide the whole numbers and the fractions separately.
- When converting, multiply but forget to add the top number.
- You can divide a mixed number without changing it first.