Answers and talk notes

Divide Decimals Using an Algorithm

What your student is learning

Tonight we divide with decimals. The trick is to make the number we divide by a whole number first.

Answers

Ask your student to explain before you look.

1. **A.** 4.2. 8 ÷ 2 = 4 and 0.4 ÷ 2 = 0.2, so 8.4 ÷ 2 = 4.2.
2. **B.** Move both decimal points 1 place to the right. Move both points 1 place to the right: 0.4 becomes 4 and 5.2 becomes 52. So the answer is: Move both decimal points 1 place to the right.
3. **C.** 45 ÷ 9. Multiply both numbers by 10: 4.5 ÷ 0.9 = 45 ÷ 9.
4. **D.** 4. 6.4 ÷ 1.6 = 64 ÷ 16 = 4. Check: 1.6 × 4 = 6.4.
5. **B.** 21. 12.6 ÷ 0.6 = 126 ÷ 6 = 21.
6. **A.** 8. 7.2 ÷ 0.9 = 72 ÷ 9 = 8 pieces.

Talk about it

Did both numbers get the same change? What happens to the answer if only one changes?

Home mission

Ask: how many 6.3s fit in 18.9? Slide both points one place right. Can your student say how many 63s fit in 189?

When they are stuck, ask

- How many places do we move the point to make the divisor a whole number?
- Did we move the point the same way in both numbers?
- Let's multiply our answer by the divisor. Do we get the original number?

Try not to say

- Just move the point in the divisor and leave the other number alone.
- Dividing by a decimal smaller than 1 always makes the answer smaller.
- Where the point lands in the answer does not matter.