Dividing by Decimals

ANSWER KEY • Amplify Alignment: Grade 6 Accelerated, Unit 3, Lesson 20

1. Select all the expressions that are equivalent to 62.4 ÷ 2.6.

- ☑ **A.** 624 ÷ 26
- ☐ **B.** 620 ÷ 26
- ☑ **C.** 6,240 ÷ 260
- ☐ **D.** 624 ÷ 0.26
- ☑ **E.** 6.24 ÷ 0.26

2. Think about the expression 0.0048 ÷ 0.006.

a Write two different division expressions that have the same quotient.

Sample: 4.8 ÷ 6 and 48 ÷ 60

b Evaluate 0.0048 ÷ 0.006. Show or explain your thinking. **0.8**

3. Ty said, "To find 6.072 ÷ 8, I can divide 6,072 by 80."

a Do you agree with Ty? Explain your thinking.

No. Ty multiplied 6.072 by 1,000 but 8 by only 10, so the quotient changes. 6,072 ÷ 80 = 75.9

b Calculate 6.072 ÷ 8. **0.759**

4. Rosa said, "To find 845.4 ÷ 0.6, I can divide 8,454 by 6."

a Do you agree with Rosa? Explain your thinking.

Yes. She multiplied both numbers by 10, so the quotient stays the same.

b Calculate 845.4 ÷ 0.6. **1,409**

5. A bag of nickels weighs 6 kilograms. Each nickel weighs 5 grams. How many nickels are in the bag? (1 kilogram = 1,000 grams)

A 12,000 **B** 1,200 **C** 120 **D** 12

6 kg = 6,000 g. 6,000 ÷ 5 = 1,200 nickels

6. Different brands of juice boxes are sold in packs. Complete the table to find the unit cost of each brand.

Brand	Price ($)	Number of Boxes	Unit Cost ($)
Sunny Sips	5.40	24	**0.225**
Fruit Fizz	4.32	16	**0.27**
Berry Blast	2.88	8	**0.36**

7. Evaluate each expression.

a 13.6 ÷ 1.7 **8**

b 0.054 ÷ 0.03 **1.8**

8. Eli says, "To find 240 ÷ 1.6, I can divide 24,000 by 160." Nia says, "To find 240 ÷ 1.6, I can divide 2,400 by 16."

a Who is correct? Explain your thinking.

Both. Eli multiplied both numbers by 100, and Nia multiplied both by 10. Either way the quotient stays the same.

b Calculate 240 ÷ 1.6. **150**