

Dividing by a Whole Number

Dividing a decimal by a whole number is similar to dividing whole numbers by whole numbers.

Find $196 \div 32$.

Estimate: $210 \div 30 = 7$

Step 1 Divide. Put the decimal point in dividend and quotient.

$$\begin{array}{r} 6. \\ 32 \overline{)196.} \\ \underline{-192} \\ 4 \end{array}$$

Step 2 Annex a zero. Divide. Subtract then bring down.

$$\begin{array}{r} 6.1 \\ 32 \overline{)196.0} \\ \underline{-192} \downarrow \\ 40 \\ \underline{-32} \\ 8 \end{array}$$

Step 3 Repeat until there is no remainder.

$$\begin{array}{r} 6.125 \\ 32 \overline{)196.000} \\ \underline{-192} \downarrow \\ 40 \\ \underline{-32} \downarrow \\ 80 \\ \underline{-64} \downarrow \\ 160 \\ \underline{-160} \\ 0 \end{array}$$

Since 6.125 is close to 7, the answer is reasonable.

Find each quotient. Round to nearest hundredth if necessary.

1. $9 \overline{)20.7}$

2. $6 \overline{)31.2}$

3. $7 \overline{)22.61}$

4. $11 \overline{)93.5}$

5. $12 \overline{)4.5}$

6. $8 \overline{)401.2}$

7. Marcus purchased a 12 lb bag of trail mix. He paid \$10.80. Find the price per pound.

8. **Writing in Math** Destiny said that $0.6 \div 2 = 0.3$. Is she correct? Explain why or why not.

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Find each quotient. Round to the nearest hundredth if necessary.

- 1. $77 \div 4 =$ _____
- 2. $3.21 \div 6 =$ _____
- 3. $14 \div 80 =$ _____
- 4. $\$1.13 \div 22 =$ _____
- 5. $130 \div 10,000 =$ _____
- 6. $8.6 \div 86 =$ _____
- 7. $231 \div 11 =$ _____
- 8. $961.23 \div 13 =$ _____

9. **Number Sense** How can you tell if $54.6 \div 3$ is greater than or less than $54.6 \div 30$?

For 10 and 11, write the price per ounce of each type of nut butter to the nearest cent.

10. peanut butter

11. almond butter

| Nut Butter | Price per Container |
|------------|---------------------|
| Peanut | 12 oz for \$1.11 |
| Cashew | 11 oz for \$3.30 |
| Almond | 16 oz for \$2.24 |

12. Which type of nut butter is the most expensive per ounce?

Test Prep

13. Find the quotient of $60.82 \div 17$. Round to the nearest hundredth.

- A. 3.577 B. 3.58 C. 3.59 D. 3.6

14. **Writing in Math** Explain how you determined the price per ounce of a 12 oz jar of peanut butter in Exercise 10.
