

Chapter 1 Lesson 3

Rates

Rate – ratios that compare 2 quantities measured with DIFFERENT units

Ex: \$12 for 3 pounds

Unit Rate – rate for one unit of a given quantity (DENOMINATOR OF 1)

$$\frac{\$12}{3 \text{ pounds}} = \frac{\$4}{1 \text{ pound}}$$

Handwritten annotations: A blue arrow above the equation points from the denominator '3 pounds' to the denominator '1 pound', with a handwritten ' $\div 3$ ' above it. A blue arrow below the equation points from the denominator '3 pounds' to the denominator '1 pound', with a handwritten ' $\div 3$ ' below it.

$$\frac{\$4}{1 \text{ pound}}$$

Handwritten annotation: The entire fraction is circled in blue.

Examples:

40 pages in 8 days

$$\frac{40 \text{ pages}}{8 \text{ days}} = \frac{5 \text{ pages}}{1 \text{ day}}$$

Handwritten annotations: A blue arrow above the equation points from the denominator '8 days' to the denominator '1 day', with a handwritten ' $\div 8$ ' above it. A blue arrow below the equation points from the denominator '8 days' to the denominator '1 day', with a handwritten ' $\div 8$ ' below it.

$$\frac{5 \text{ pages}}{1 \text{ day}}$$

Handwritten annotation: The entire fraction is circled in blue.

Mr. Gonzales spends \$135 for 5 bags of groceries. How much does he spend per bag of groceries, if each bag costs the same?

$$\frac{\$135}{5 \text{ bags}} = \frac{\$27}{1 \text{ bag}}$$

$\div 5$

$\div 5$

$$\frac{\$27}{1 \text{ bag}}$$

Ms. Terry travels by train to see famous theme parks. She travels a distance of 728 miles in 8 hours. If the train maintains a constant speed, how many miles does she travel in one hour?

$$\frac{728 \text{ miles}}{8 \text{ hours}} = \frac{91 \text{ miles}}{1 \text{ hour}}$$

$\div 8$

$\div 8$

$$\frac{91 \text{ miles}}{1 \text{ hour}}$$

$$\begin{array}{r} 91 \\ 8 \overline{)728} \\ \underline{-72} \\ 08 \\ \underline{-8} \\ 0 \end{array}$$