

Name: _____

Mathematics 6

10-6: Solving Proportions Using Unit Rates

You have learned how to solve proportions using cross products. Now you will learn another method for solving proportions.

Recall that a unit rate is a ratio where one quantity is compared to exactly one unit of another quantity (tells you what one of something is worth). You can find the unit rate by using division.



Ex: Market Supreme sells granola by the pound. Tammy's granola weighed 8 pounds. The cashier charged her \$12. What was the price per pound ..what is one pound worth?

$$\frac{\$12}{8 \text{ pounds}} = \$ \frac{\quad}{\text{pound}}$$

You Try: Market Supreme sells candy by the pound. Kelan's candy weighed 10 pounds. The cashier charged him \$22.50. What was the price per pound?



Unit rates can be used to solve proportions. Find the unit rate of the given proportion, and use multiplication to find the unknown value.

Ex: Lauren wants to read *The Lion, The Witch, and The Wardrobe*. The book is 216 pages long. Yesterday she read the first 12 pages in about 18 minutes. How long will it take her to read the entire book?



You Try: Stacey bought 20 pencils for \$1.60. At that rate, how much would 35 pencils cost?

