➢ Rates & Unit Rates

A _____ is a ratio that compares two quantities with <u>different kinds of units.</u>

Example: $\dfrac{100\ words}{2\ minutes}$

When a rate is simplified so that it has a _____ , it is called a **UNIT RATE.**

To find a <u>unit rate</u>:   1**.** Write two quantities as a _____ .

2. _____ both the numerator and the denominator by the denominator.

3. This will create a denominator of _____ (a single unit means 1)

4. Write unique units of measurement for both.

Example: $\dfrac{100\ words}{2\ minutes}$ $=$ $\dfrac{\div 2}{\div 2}$ $=$ $\dfrac{(\quad)words}{1\ minute}$ or " _____ words per minute"

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1) Alex can run 24 miles in 3 hours. What is his average speed in miles per hour?

2) You buy 5 pounds for $35. How much does one pound cost?

3) The costs of different sizes of orange juice are shown in the table.

Which container costs the least per ounce?

Amount	Total Cost	Rate	Cost per ounce (Unit cost)
16 oz	$1.28		
32 oz	$1.92		
64 oz	$2.56		
96 oz	$3.36		

Bargain Hunting Activity

For each exercise below, rates are given in Column A and Column B. Figure out the best buy.

Column A	Unit Rate A	Column B	Unit Rate B	Best Buy (A or B?)
1 apple for $0.19		3 apples for $0.59		
20 pounds of pet food for $14.99		50 pounds of pet food for $37.99		
A car that travels 308 miles on 11 gallons of gasoline		A car that travels 406 miles on 14 gallons of gasoline		
10 pens for $8.99		25 pens for $19.75		
1-gallon can of paint for $13.99		5-gallon bucket of paint for $67.45		
84 ounces of liquid detergent for $10.64		48 ounces of liquid detergent for $6.19		
5,000 square feet of lawn food for $11.99		12,500 square feet of lawn food for $29.99		
2 compact discs for $26.50		3 compact discs for $40.00		
8 pencils for $0.99		12 pencils for $1.49		
1,000 sheets of computer paper for $8.95		5,000 sheets of computer paper for $41.99		