

Name _____

Date _____

Mr. Tallman

Do Now

Solve the following proportions. Round to the nearest tenth if necessary.

1) $\frac{3}{x} = \frac{16}{25}$

2) $\frac{2.5}{10} = \frac{x}{65}$

3) A train travels a distance of 250 miles in 1.5 hours. How far will the train have traveled after 5 hours? Round your answer to the nearest tenth of a mile.

Lesson #25 - Unit Rate vs. Proportions

Recall:

Frank can paint 20 paintings in 8 hours. Find his unit rate in paintings per hour.

We can solve proportional word problems in two different ways: by solving proportions or by solving unit rate.

Example 1) At the store, beef jerky was \$73.70 for 5 pounds. If you bought 7 pounds, how much would it cost?

Proportion Method

Unit Rate Method

Example 2) If Janet can type 20 words in 80 seconds, how many words can she type in 240 seconds?

Try It!

There are 120 calories in 4 teaspoons of peanut butter. How many calories are in 6 teaspoons of butter?

Now, You Try!

3) Chris had 72 hits in 200 at-bats. At that rate, how many hits will he have in 275 at-bats?

4) Julie can walk $\frac{3}{4}$ of a kilometer in $\frac{5}{6}$ of an hour.

A) Find the unit rate, in kilometers per hour.

B) How long can Julie walk after 3 hours?

5) Tony sells a 26 ounce jar of pasta sauce for \$4.99. Stella sells a 32 ounce jar of pasta sauce that costs \$5.79. Which is the better buy? Show all work and explain.

6) Write a ratio that is equivalent to 15 to 25. _____

#5-7: A soccer team finishes the regular season with a record of 14 wins to 5 losses.

Write the ratio of:

5) wins to losses

6) Losses to games played

7) Losses to wins

#8-9: Determine if the following is a **rate** or a **unit rate**.

8) 25 miles per hour	9) \$15 for every $\frac{1}{2}$ hour
----------------------	--------------------------------------

#10-11: Define the following. LOOK BACK IN YOUR NOTES IF YOU DON'T REMEMBER.

10) A **ratio** is _____

11) A **proportion** is _____

12) What is the **difference** between a rate and a unit rate? _____
