NAME _____

Lesson 3.4 Understanding Unit Rates

A **rate** is a special ratio that compares quantities of two different types of items—for example, *340 miles per 10 gallons (340 mi./10 gal.)*. In a **unit rate**, the second quantity is always 1, such as in *34 miles per gallon (34 mi./1 gal.)*. This allows you to see how many of the first item corresponds to just one of the second item.

Suppose you want to divide students equally between buses for a field trip. To see how many students should go on each bus, find the unit rate.

If there are 160 students and 4 buses, how many students should go on each bus?

$\frac{160}{4} = \frac{s}{1}$ To find the number of students for one bus, divide by the number of buses total.

$\frac{160}{4} = \frac{40}{1}$ The unit rate is $\frac{40}{1}$, or 40 students per bus.

SHOW YOUR WORK

Solve each problem by finding the unit rate.

1. John can create 20 paintings in 4 weeks. How many paintings can he create each week?

1.

2. Sasha can walk 6 miles in 3 hours. If she has to walk 1 mile, how long will it take her?

2.

3. Todd keeps his 4-room house very clean. It takes him 1 hour and 36 minutes to clean his whole house. How long does it take him to clean one room?

3.

4. Victoria can make 8 necklaces in 4 days. How long does it take her to make one necklace?

4.

5. Byron has his own bakery. He bakes 84 cakes each week. How many cakes can he make in one day?

5.

6. Charlie buys 3 computer tables for $390. How much did he pay for each table?

6.