Lesson 18: Finding a Rate by Dividing Two Quantities

Classwork

Mathematical Modeling Exercises

1. At Fun Burger, the Burger Master can make hamburgers at a rate of 4 burgers/minute. In order to address the heavy volume of customers, he needs to continue at this rate for 30 minutes. If he continues to make hamburgers at this pace, how many hamburgers will the Burger Master make in 30 minutes?

2. Chandra is an editor at the New York Gazette. Her job is to read each article before it is printed in the newspaper. If Chandra can read 10 words/second, how many words can she read in 60 seconds?

Exercises

Use the table below to write down your work and answers for the stations.

1.
2.
3.
4.
5.
6.

Lesson Summary

We can convert measurement units using rates. The information can be used to further interpret the problem. Here is an example:

$$\left(5\,\frac{gal}{min}\right) \cdot (10\ min) = \frac{5\ gal}{1\ \cancel{min}} \cdot 10\ \cancel{min}$$
$$= 50\ gal.$$

Problem Set

1. Enguun earns $17 per hour tutoring student-athletes at Brooklyn University.

    a. If Enguun tutored for 12 hours this month, how much money did she earn this month?

    b. If Enguun tutored for 19.5 hours last month, how much money did she earn last month?

2. The Piney Creek Swim Club is preparing for the opening day of the summer season. The pool holds 22,410 gallons of water, and water is being pumped in at 540 gallons per hour. The swim club has its first practice in 42 hours. Will the pool be full in time? Explain your answer.