

Lesson 10: Practice Problems

1.
 - a. A cookie recipe uses 3 cups of flour to make 15 cookies. How many cookies can you make with this recipe with 4 cups of flour? (Assume you have enough of the other ingredients.)
 - b. A teacher uses 36 centimeters of tape to hang up 9 student projects. At that rate, how much tape would the teacher need to hang up 10 student projects?
2. Evaluate each expression. When the answer is not a whole number, write your answer as a fraction.
 - a. $-4 \cdot -6$
 - b. $-24 \cdot \frac{-7}{6}$
 - c. $4 \div -6$
 - d. $\frac{4}{3} \div -24$
3. Some boats were traveling up and down a river. A satellite recorded the movements of several boats.
 - a. A motor boat traveled -3.4 miles per hour for 0.75 hours. How far did it go?
 - b. A tugboat traveled -1.5 miles in 0.3 hours. What was its velocity?
 - c. What do you think that negative distances and velocities could mean in this situation?

4. Describe a situation where each of the following quantities might be useful.

- a. -20 gallons per hour
- b. -10 feet per minute
- c. -0.1 kilograms per second

5. A submarine is only allowed to change its depth by rising toward the surface in 60-meter stages. It starts off at -340 meters.

- a. At what depth is it after:
 - i. 1 stage
 - ii. 2 stages
 - iii. 4 stages
- b. How many stages will it take to return to the surface?