ALEKS® Section 6.7 Applications #3

Intermediate Algebra / Copy of MAT 135 Spring 2014 (Prof. Porter)

Student Name/ID:

1. Solve for y .

$$5 = \frac{x}{y}$$

2. Solve for f .

$$h = \frac{k-g}{f-7}$$

3. Solve for p .

$$s = \frac{9}{p} + \frac{5}{r}$$

4. Sam runs 3 miles in 28 minutes. At the same rate, how many miles would he run in 42 minutes?

5. Chau drove 200 miles using 9 gallons of gas. At this rate, how many gallons of gas would he need to drive 420 miles?

6. An aquarium tank can hold 6600 liters of water. There are two pipes that can be used to fill the tank. The first pipe alone can fill the tank in 55 minutes. The second pipe can fill the tank in 66 minutes by itself. When both pipes are working together, how long does it take them to fill the tank?

7. A swimming pool holds $480{,}000$ liters of water. The pool has two drainage pipes. When the pool is completely full, the first pipe alone can empty it in 160 minutes, and the second pipe alone can empty it in 240 minutes. When both pipes are draining together, how long does it take them to empty the pool?

8. Working together, it takes two different sized hoses 30 minutes to fill a small swimming pool. If it takes 40 minutes for the larger hose to fill the swimming pool by itself, how long will it take the smaller hose to fill the pool on its own?

Do not do any rounding.

9. Working together, it takes two different sized hoses 20 minutes to fill a small swimming pool. If it takes 25 minutes for the larger hose to fill the swimming pool by itself, how long will it take the smaller hose to fill the pool on its own?

Do not do any rounding.

10. Dale's boat has a top speed of 9 miles per hour in still water. While traveling on a river at top speed, he went 10 miles upstream in the same amount of time he went 20 miles downstream. Find the rate of the river current.