Core Connections 2

Chapter 7 Test: Study Guide – Percent Change and Distance Problems (d=rt)

1) Which is more: 40% of 200 or 60% of 130?   Why?

2) Solve:

a.   21 is what percent of 70?

b.   15% of what number is 54?

c.   18% of 48 is what number?

3) The price of gasoline rose from $1.25 to $2.25.

a.   What is the percent increase?

b.   If the price reverses from $2.25 to $1.25, what is the percent decrease?

4) Samantha lives 1.3 miles from school, and she is running late! If she must be there in 30 minutes, at what rate must she walk, in miles per hour, to make it in time? What if she had to be there in 20 minutes–then how fast would she need to walk? Explain.

5) Jack's car used 18 gallons of gasoline to go 468 miles. At that rate, how many gallons would be used to go 754 miles? Explain how you know.

6) An airplane is flying at an elevation of 20,000 feet and descends at a rate of 325 feet per minute for 8 minutes. What is the new elevation of the airplane and how do you know?

7) A shirt is on sale and the discount is listed as 20% off the original price. The original price is $49.99. What two multipliers could be used to find the sale price? Explain the how you could use each one and justify your answer by showing both multipliers can be used to find the sale price.