Algebra 1B
Name_____ ID: 1

3.7 Direct Variation

Date_____ Period_____

Find the constant of variation.

1) $y = 13x$

2) $y = 2x$

Solve each problem involving direct or inverse variation.

3) If y varies directly as x, and $y = 8$ when $x = 10$, find y when $x = 9$.

4) If y varies directly as x, and $y = 6$ when $x = 8$, find y when $x = 11$.

Please solve the following word problems.

5) A local fast food restaurant takes in $9000 in a 4 hour period. How many hours would it take the restaurant to earn $20,250?

6) Your distance from lightning varies directly with the time it takes you to hear thunder. If you hear thunder 10 seconds after you see the lightning, you are about 2 miles from the lightning. How many seconds would it take for the thunder to travel a distance of 3.5 miles?

7) A recipe for 2 dozen corn muffins calls for 3 cup of flour. The number of muffins varies directly with the amount of flour you use. How many cups of flour are needed to make 6 dozen muffins?

8) In 24 Weeks, Michael raised $240,000 for cancer research. How much money will he raise 36 weeks?

9) If 24 square feet of a fabric weighs 50 ounces, what is the weight of a rectangular piece that is 12 feet long and 8 feet wide?

10) If 18 men in 10 days can dig a 90-foot drainage ditch for water, how many men will be needed to dig a ditch 120 feet long in the same amount of time?