Algebra I   Name:_____ Block:_____ Date: _____
SOL A.8 Direct/Inverse Variation

Direct Variation: _____   Inverse Variation:_____

Find the missing variable:
1) y varies **directly** with x. If y = -4 when x = 2, find y when x = -6.

2) y varies **inversely** with x. If y = 40 when x = 16, find x when y = -5.

Classify the following as **direct variation**, **inverse variation**, or **neither**.

3)   m = -5p   4) c = $\frac{t}{-4}$ 5) xy + 3 = 0

6) r = $\frac{9}{d}$ 7) n = 2x + 3   8) xy = 5

What is the constant of variation for the following?
9) d = 4t   10) z = $\frac{-0.2}{t}$ 11) n = $\frac{x}{2}$

12) The cost per person to rent a mountain cabin is inversely proportional (varies inversely) to the number of people who share the rent. If the cost is $36 per person when 5 people share, what is the cost per person when 8 people share?

13) The amount of money earned on a job is directly proportional (varies directly) to the number of hours worked. If $36 is earned for 8 hours of work, how much is earned for 30 hours of work?

Tell whether the table represent direct variation, inverse variation, or neither. If direct or inverse variation write the equation.

14)   15)

X	2	5	-2	-5	-1
Y	12.5	5	-12.5	-5	-25

X	2	4	6	8	10
Y	1	2	3	4	5