Direct and Inverse Variation Worksheet   Name:_____

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.

3) y varies inversely with x. If y = 7 when x = -4, find y when x = 5.

4) y varies directly with x. If y = 15 when x = -18, find y when x = 1.6.

5) y varies directly with x. If y = 75 when x =25, find x when y = 25.

Classify the following as: **a) Direct**   **b) Inverse**   **c) Neither**

6) m = -5p   9) $c = \dfrac{e}{-4}$ 12) c = 3v

7) $r = \dfrac{9}{t}$ 10) n = ½ f   13) $u = \dfrac{i}{18}$

8) d = 4t   11) $z = \dfrac{-.2}{t}$

What is the constant of variation for the following?

14) d = 4t   15) $z = \dfrac{-.2}{t}$ 16) n = ½ f   17) $r = \dfrac{9}{t}$

Answer the following questions.

18) If x and y vary directly, as x decreases, what happens to the value of y?

19) If x and y vary inversely, as y increases, what happens to the value of x?

20) If x and y vary directly, as y increases, what happens to the value of x?

21) If x and y vary inversely, as x decreases, what happens to the value of y?