

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) $c = \frac{e}{-4}$

12) $c = 3v$

7) $r = \frac{9}{t}$

10) $n = \frac{1}{2}f$

13) $u = \frac{i}{18}$

8) $d = 4t$

11) $z = \frac{-2}{t}$

What is the constant of variation for the following?

14) $d = 4t$

15) $z = \frac{-2}{t}$

16) $n = \frac{1}{2}f$

17) $r = \frac{9}{t}$

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?