

**Adv Algebra with Trig TOPIC 1: Beyond Linear Functions Direct Variation Classwork**

1. Tell if the following tables represent a direct variation relationship.

A. 

X	Y
1	10
4	9
7	8

B. 

X	Y
90	3
80	2
70	1

C. 

X	Y
9	3
11	5
13	7

D. 

X	Y
75	15
85	10
90	5

2. Tell if the data has a direct variation relationship. If yes, give the constant variation and the equation to represent the data.

X	Y
9	3
12	4
15	5

k =                      Equation:

3. Write the equation of a direct variation that has a constant of variation equal to -3.

4. Y and X vary directly. If the constant of variation is  $\frac{1}{2}$ , then what is the value of y when x = -6?

3. Y and X vary directly. If the constant of variation is 4, then what is the value of x when y = 6?

5. Suppose y varies directly as x. If y = 3 when x = 15, then find x when y = 5.

6. Suppose y varies directly as x. Find x when y = 10 if y = -7 when x = -14.

7. Suppose y varies directly as x. If x = 15 when y = 12, find x when y = 21.

8. Suppose y varies directly as x. If x = 24 when y = 8, then what is the constant of variation?

9. The area of a circle, A, **varies directly** as the square of its radius r.

Sketch graph,

(a) to show the relationship between the area and its radius

(b) to show the relationship between the area and the square of its radius.

