Direct and Inverse Variation HW

Name _____
Period _____

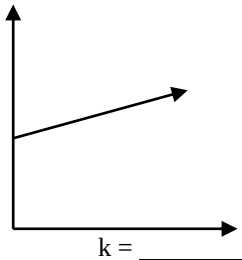
1. The speed you must go to cover a certain distance varies inversely with the time of the trip. Suppose you must travel 54 miles per hour to complete your trip if it takes you 4 hours. How fast must you travel to complete your trip in 3 hours?

2. It takes a crew of 4 painters to complete a certain job in 12 hours. If time required varies inversely as the number of painters, how long will it take to complete the job if only 2 painters are available?

3. A marching band can make different rectangular patterns with different numbers of rows and columns. The number of rows and the number of columns vary inversely with one another. One arrangement has 12 rows and 9 columns. How many rows would be in an arrangement that contains 6 columns?

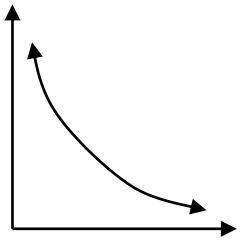
4. Determine if each of the following graphs is an example of direct variation, inverse variation, or neither.

a.

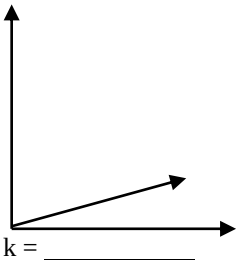


k = _____

b.

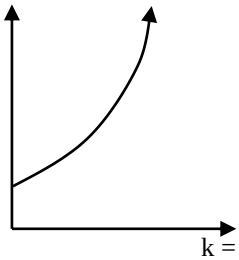


c.

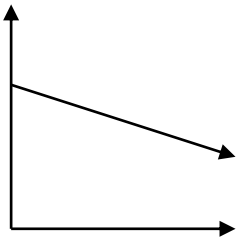


k = _____

d.



e.



k = _____

5. y varies directly with x. If y = -6 when x = 2, find y when x = -6.

6. y varies inversely with x. If y = 4 when x = 16, find x when y = -2.

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

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

9. Given the following charts, decide if the equation is an inverse variation, direct variation or neither. If it is a direct or inverse variation, find the equation for the chart.

X	Y
-3	-4
-1	-12
2	6

X	Y
2	-6
1	-3
3	-12

X	Y
1.2	6
3	15
6.1	30.5