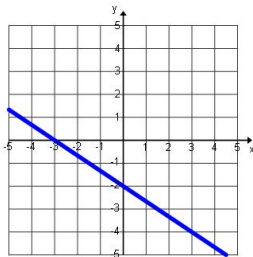


Direct Variation

Determine whether y varies directly with x (directly proportional)

$y = 2x$ Y or N



| X | Y |
|---|----|
| 2 | 8 |
| 4 | 16 |
| 6 | 24 |
| 8 | 32 |

| X | Y |
|---|-----|
| 0 | 3 |
| 2 | 3.8 |
| 4 | 4.6 |
| 6 | 5.4 |

$y = 2x + 1$ Y or N

Y or N

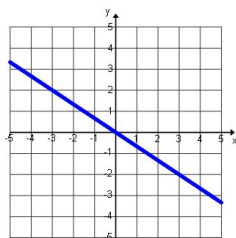
$3x = 4y$ Y or N

Y or N

Y or N

Y or N

$4y - 6x = 8$ Y or N



| X | Y |
|---|----|
| 2 | 6 |
| 4 | 14 |
| 6 | 22 |
| 8 | 30 |

| X | Y |
|---|-----|
| 0 | 0 |
| 2 | 0.8 |
| 4 | 1.6 |
| 6 | 2.4 |

$2y = 5x - 6$ Y or N

Y or N

Y or N

Determine the constant of variation.

1. $y = -2x$, $k =$ _____

2. $y = \frac{1}{2}x$, $k =$ _____

3. $y = 5x$, $k =$ _____

4. Sally decided to download songs that cost \$2 each. Direct Variation Y or N

5. Sally takes a taxi to the airport. She is charged a \$5 fee plus \$1.05 per mile traveled.
Direct Variation Y or N

6. At a given time, the length, L, of the shadow of an object varies directly as the height of the object. If the shadow is 27 ft when the height of the object is 12 ft, what is the height of the object if the shadow is 18 ft?

7. The circumference, c , of a circle is directly proportional to the diameter of the same circle. If the circumference is 44cm when the diameter is 14cm, find the circumference when the diameter is 21cm.

8. The perimeter, p , of an equilateral triangle varies directly as the length of a side. If the perimeter is 153cm when the side length is 51cm, what would be the perimeter if the side length is 81cm?

9. If y varies directly as x and $y = 6$ when $x = 8$, find x when $y=9$.

Using the table, determine whether y is directly proportional varies to x .

10.

| | | | |
|-----|---|----|----|
| x | 1 | 3 | 5 |
| y | 6 | 18 | 30 |

11.

| | | | |
|-----|----|---|---|
| x | 2 | 4 | 8 |
| y | -2 | 0 | 4 |

12. Determine the constant of variation given a point from a direct variation situation: (8, 24)

13. Determine the constant of variation given a point from a direct variation situation: (12, -2)