

Gradient Sheet

The gradient is defined to be

$$\text{gradient} = m = \frac{\text{change in } y}{\text{change in } x} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}.$$

It is the furthest right form that you should use here.

1. Find the gradient between the points $(0, 0)$ and $(1, 4)$. $m = 4$
2. Find the gradient between the points $(1, 2)$ and $(3, 6)$. $m = 2$
3. Find the gradient between the points $(-1, 3)$ and $(0, 2)$. $m = -1$
4. Find the gradient between the points $(-5, 7)$ and $(-2, 1)$. $m = -2$
5. Find the gradient between the points $(3, 2)$ and $(5, 7)$. $m = \frac{5}{2}$
6. Find the gradient between the points $(-3, 4)$ and $(-1, 1)$. $m = -\frac{3}{2}$
7. Find the gradient between the points $(0, -4)$ and $(-9, 3)$. $m = -\frac{7}{9}$
8. Find the gradient between the points $(-100, 1022)$ and $(-93, 1027)$. $m = \frac{5}{7}$
9. Find the gradient between the points $(0, -6)$ and $(7, -3)$. $m = \frac{3}{7}$
10. Find the gradient between the points $(-3, -1)$ and $(2, -5)$. $m = -\frac{4}{5}$
11. Find the gradient between the points $(\frac{1}{2}, 0)$ and $(1, -1)$. $m = -2$
12. Find the gradient between the points $(\frac{2}{3}, 5)$ and $(\frac{1}{4}, 3)$. $m = \frac{24}{5}$
13. Find the gradient between the points $(\frac{1}{5}, \frac{2}{3})$ and $(\frac{5}{2}, 2)$. $m = \frac{40}{69}$
14. Find the gradient between the points $(\pi, 3\pi)$ and $(2\pi, 5\pi)$. $m = 2$
15. Find the gradient between the points $(5, k + 4)$ and $(-2, k + 2)$. $m = \frac{2}{7}$
16. If the gradient between the points $(1, a)$ and $(2, 3)$ is 1, find the value of a . $a = 2$
17. If the gradient between the points $(2, 5)$ and $(-1, b)$ is 3, find the value of b . $b = -4$
18. If the gradient between the points $(4, 5)$ and $(6, c)$ is $\frac{1}{2}$, find the value of c . $c = 6$
19. If the gradient between the points $(-1, 3)$ and $(d, 4)$ is -2 , find the value of d . $d = -\frac{3}{2}$
20. If the gradient between the points $(0, 5)$ and $(e, -1)$ is $\frac{2}{3}$, find the value of e . $e = -9$
21. If the gradient between the points $(-2, f)$ and $(2, 3)$ is 0, find the value of f . $f = 3$
22. If the gradient between the points $(-3, -1)$ and $(g, -4)$ is $-\frac{4}{5}$, find the value of g . $g = \frac{3}{4}$