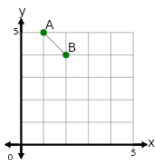




Calculate average rate of change

1

Find the slope of the line between Point A and Point B



A -2.8

B -0.5

C -1

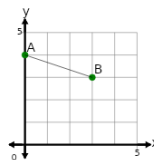
D -2.6

E -2

F -1.2

2

Find the slope of the line between Point A and Point B



A -0.47

B -1

C -0.27

D -0.13

E -0.33

F -3

3

What slope would this line of X, Y values have?

X	Y
0	1.33
1	1
2	0.67
3	0.33
4	0

A

$m = -0.17$

B

$m = -3$

C

$m = 0.33$

D

$m = -0.33$

4

(6, 3) and (10, 7)

A

2.8

B

1.5

C

1.75

D

2.2

E

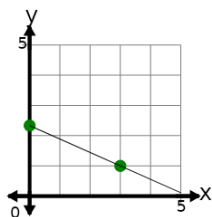
0.8

F

1

5

What slope does the line on this graph have?



A $m = 0.33$

B $m = -3$

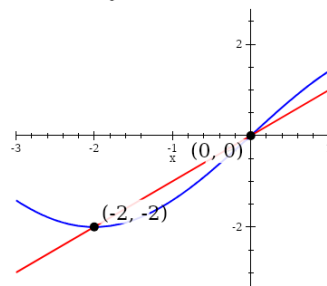
C $m = -0.17$

D $m = -0.33$

6

Write the expression for the average rate of change shown by the secant line between the two marked points (-2, -2) and (0, 0).

$$y = 2\sin(\pi x/4)$$



A

$$\frac{(-2) - 0}{0 - (-2)}$$

B

$$\frac{0 - (-2)}{0 - (-2)}$$

C

$$\frac{0 - (-2)}{(-2) - 0}$$

7

Write the expression for the average rate of change of this function between the two points.

$$f(x) = 2\sqrt{x}$$

$$f(1) = 2$$

$$f(2) = 2.8$$

A

$$\frac{2 - 1}{2.8 - 2}$$

B

$$\frac{2.8 - 2}{2 - 1}$$

C

$$\frac{2.8 - 2}{1 - 2}$$

D

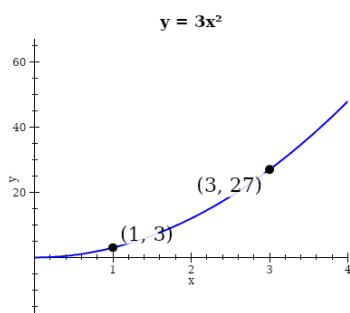
$$\frac{2 - 2.8}{2 - 1}$$



Calculate average rate of change

8

Write the expression for the average rate of change between the two marked points (1, 3) and (3, 27).



A $\frac{27 - 3}{3 - 1}$

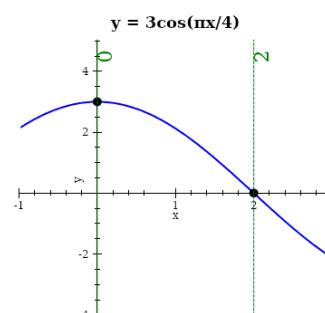
B $\frac{3 - 1}{27 - 3}$

C $\frac{27 - 3}{1 - 3}$

D $\frac{3 - 27}{3 - 1}$

9

Write the expression for the average rate of change between the two highlighted x-values $x=0$ and $x=2$.



A $\frac{2 - 0}{0 - 3}$

B $\frac{3 - 0}{2 - 0}$

C $\frac{0 - 3}{2 - 0}$

D $\frac{0 - 3}{0 - 2}$

10

Write the expression for the average rate of change of this function between the two x-values.

$$f(x) = 3x^2$$

$$f(-2) = ?$$

$$f(-1) = ?$$

A $\frac{3 - 12}{(-1) - (-2)}$

B $\frac{12 - 3}{(-1) - (-2)}$

C $\frac{(-1) - (-2)}{3 - 12}$

D $\frac{3 - 12}{(-2) - (-1)}$

11

Write the expression for the average rate of change of this function from this x-value over an interval of width h .

$$f(x) = \frac{3}{x}$$

$$f(2) = ?$$

$$f(2+h) = ?$$

A $\frac{h}{\frac{3}{2+h} - 1.5}$

B $\frac{\frac{3}{2+h} - 1.5}{h}$

C $\frac{\frac{3}{2+h} - 1.5}{2}$

D $\frac{1.5 - \frac{3}{2+h}}{h}$

12

Find the average rate of change of this function between the two points.

$$f(x) = \frac{3}{x}$$

$$f(-2) = -1.5$$

$$f(-3) = -1$$

A -0.5

B 0.5

C 0.1

D -2

**Calculate average rate of change****13**

Write the expression for the average rate of change of this function from this point over an interval of width h .

$$f(x) = 3\sqrt{x}$$

$$f(0) = 0$$

$$f(0+h) = 3\sqrt{0+h}$$

A

$$\frac{h}{3\sqrt{0+h}-0}$$

B

$$\frac{3\sqrt{0+h}-0}{0}$$

C

$$\frac{3\sqrt{0+h}-0}{h}$$

D

$$\frac{0-3\sqrt{0+h}}{h}$$

14

Find the average rate of change of this function from this point over an interval of width h .

$$f(x) = 2\sqrt{x}$$

$$f(1) = 2$$

$$f(1+h) = 2\sqrt{1+h}$$

A

$$\frac{2}{2\sqrt{1}}$$

B

$$\frac{2}{\sqrt{1+h}}$$

C

$$\frac{2}{\sqrt{1+h}+\sqrt{1}}$$

D

$$\frac{2}{\sqrt{1+h}-\sqrt{1}}$$

15

Find the average rate of change of this function from this x -value over an interval of width h .

$$f(x) = x^3$$

$$f(1) = ?$$

$$f(1+h) = ?$$

A

$$3+3h-h^2$$

B

$$3+3h$$

C

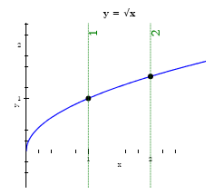
$$3+3h+h^2$$

D

$$3+h$$

16

Find the average rate of change between the two highlighted x -values $x=1$ and $x=2$.



A 1.4

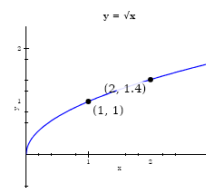
B -0.4

C 2.4

D 0.4

17

Find the average rate of change between the two marked points $(2, 1.4)$ and $(1, 1)$.



A -1.6

B -0.4

C 2.4

D 0.4