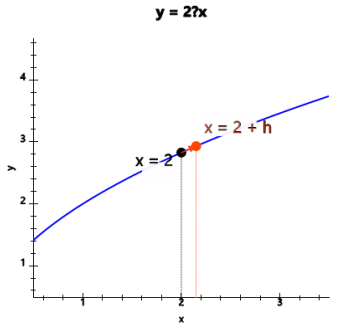
Name

Instantaneous Rate of Change - Close Points to Slope Setup

1 Set up the slope (difference quotient) of this function between the marked point and the nearby point at x + h.



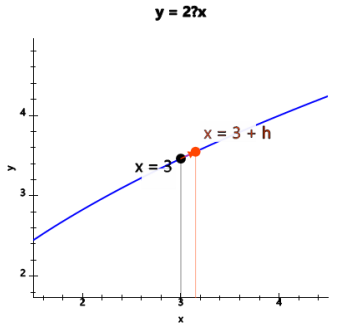
A $\frac{2\sqrt{2}-2\sqrt{2+h}}{(2+h)-2}$

B $\frac{2\sqrt{2+h}+2\sqrt{2}}{(2+h)-2}$

C $\frac{2\sqrt{2+h}-2\sqrt{2}}{(2+h)-2}$

D $\frac{(2+h)-2}{2\sqrt{2+h}-2\sqrt{2}}$

2 Set up the slope (difference quotient) of this function between the marked point and the nearby point at x + h.



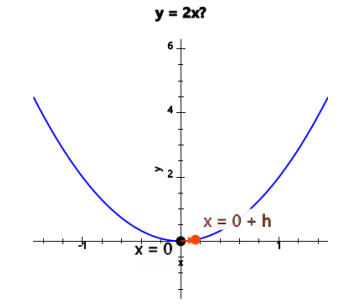
A $\frac{2\sqrt{3}-2\sqrt{3+h}}{(3+h)-3}$

B $\frac{2\sqrt{3+h}-2\sqrt{3}}{(3+h)-3}$

C $\frac{(3+h)-3}{2\sqrt{3+h}-2\sqrt{3}}$

D $\frac{2\sqrt{3+h}+2\sqrt{3}}{(3+h)-3}$

3 Set up the slope (difference quotient) of this function between the marked point and the nearby point at x + h.



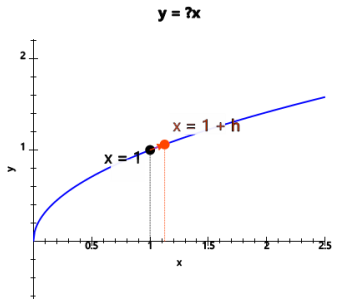
A $\frac{2(0+h)^2+2(0)^2}{(0+h)-0}$

B $\frac{2(0)^2-2(0+h)^2}{(0+h)-0}$

C $\frac{2(0+h)^2-2(0)^2}{(0+h)-0}$

D $\frac{(0+h)-0}{2(0+h)^2-2(0)^2}$

4 Set up the slope (difference quotient) of this function between the marked point and the nearby point at x + h.



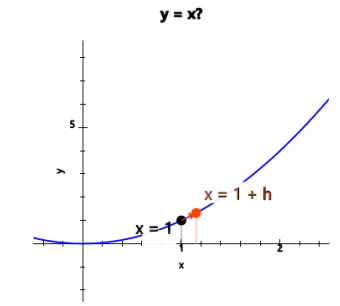
A $\frac{\sqrt{1}-\sqrt{1+h}}{(1+h)-1}$

B $\frac{\sqrt{1+h}+\sqrt{1}}{(1+h)-1}$

C $\frac{(1+h)-1}{\sqrt{1+h}-\sqrt{1}}$

D $\frac{\sqrt{1+h}-\sqrt{1}}{(1+h)-1}$

5 Set up the slope (difference quotient) of this function between the marked point and the nearby point at x + h.



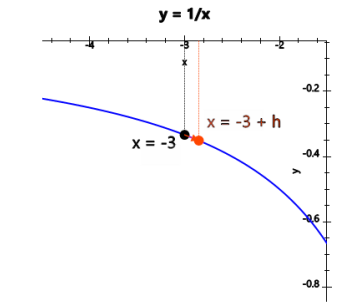
A $\frac{(1)^2-(1+h)^2}{(1+h)-1}$

B $\frac{(1+h)^2+(1)^2}{(1+h)-1}$

C $\frac{(1+h)^2-(1)^2}{(1+h)-1}$

D $\frac{(1+h)-1}{(1+h)^2-(1)^2}$

6 Set up the slope (difference quotient) of this function between the marked point and the nearby point at x + h.



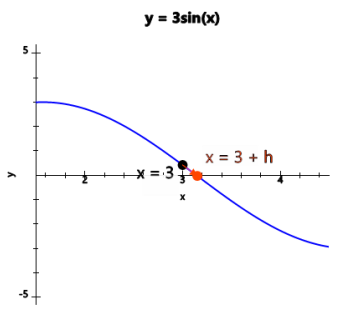
A $\frac{\frac{1}{-3+h}+\frac{1}{(-3)}}{(-3+h)-(-3)}$

B $\frac{\frac{1}{-3+h}-\frac{1}{(-3)}}{(-3+h)-(-3)}$

C $\frac{\frac{1}{(-3)}-\frac{1}{-3+h}}{(-3+h)-(-3)}$

D $\frac{(-3+h)-(-3)}{\frac{1}{-3+h}-\frac{1}{(-3)}}$

7 Set up the slope (difference quotient) of this function between the marked point and the nearby point at x + h.



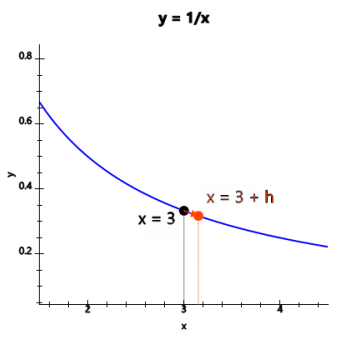
A $\frac{3\sin(3+h)+3\sin(3)}{(3+h)-3}$

B $\frac{3\sin(3)-3\sin(3+h)}{(3+h)-3}$

C $\frac{3\sin(3+h)-3\sin(3)}{(3+h)-3}$

D $\frac{(3+h)-3}{3\sin(3+h)-3\sin(3)}$

8 Set up the slope (difference quotient) of this function between the marked point and the nearby point at x + h.



A $\frac{\frac{1}{3+h}+\frac{1}{3}}{(3+h)-3}$

B $\frac{\frac{1}{3}-\frac{1}{3+h}}{(3+h)-3}$

C $\frac{(3+h)-3}{\frac{1}{3+h}-\frac{1}{3}}$

D $\frac{\frac{1}{3+h}-\frac{1}{3}}{(3+h)-3}$