

Use the graph to find the average rate of change from $x = 1$ to $x = 2$

$(1, 3)$ $(2, -2)$

$$\frac{3 - (-2)}{1 - 2} = \boxed{-5}$$

What is the average rate of change between $(-3, 0)$ and $(4, 2)$

$$\frac{0 - 2}{-3 - 4} = \boxed{\frac{2}{7}}$$



Use the graph to find the average rate of change from $x = -6$ to $x = 1$

$(-6, 1)$ $(1, 3)$

$$\frac{1 - 3}{-6 - 1} = \boxed{\frac{2}{7}}$$



Use the graph to find the average rate of change from $x = -8$ to $x = -6$

$(-8, 8)$ $(-6, 1)$

$$\frac{8 - 1}{-8 - (-6)} = \boxed{-\frac{7}{2}}$$

Given $f(x) = -3x - 8$, find the average rate of change when $x_1 = -2$ and $x_2 = 2$

$-3(-2) - 8$ $-3(2) - 8$
 $(-2, -2)$ $(2, -14)$

$$\frac{-2 - (-14)}{-2 - 2} = \boxed{-3}$$

Is this a function why or why not? $(12, 1)$, $(1, 5)$, $(5, 6)$, $(11, 1)$

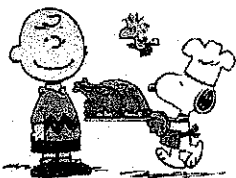
YES BECAUSE NONE OF THE X-VALUES REPEAT



Given $f(x) = -2x + 2$, find the average rate of change when $x_1 = -4$ and $x_2 = 0$

$(-4, 10)$ $(0, 2)$

$$\frac{10 - 2}{-4 - 0} = \boxed{-2}$$



What is the average rate of change between $(6, 4)$ and $(-2, -1)$

$$\frac{4 - (-1)}{6 - (-2)} = \boxed{\frac{5}{8}}$$



Is this a function why or why not? $(0, 1)$, $(1, -3)$, $(0, 4)$, $(-3, 1)$

NO BECAUSE THE X VALUE OF 0 HAS TWO Y-VALUES



Is this a function why or why not? $(12, 1)$, $(1, 5)$, $(5, 6)$, $(12, 3)$

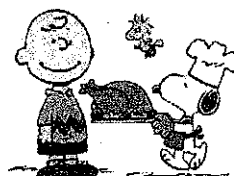
NO BECAUSE THE X-VALUE OF 12 HAS 2 Y-VALUES



Given $f(x) = -5x - 4$, find the average rate of change when $x_1 = -1$ and $x_2 = 2$

$(-1, 1)$ $(2, -14)$

$$\frac{1 - (-14)}{-1 - 2} = \boxed{-5}$$

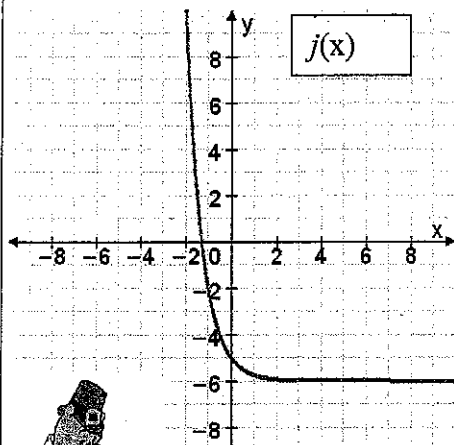


What is the average rate of change between $(0, -1)$ and $(-2, 5)$

$$\frac{-1 - 5}{0 - (-2)} = \boxed{-3}$$



Choice Board



x	h(x)
-2	-6
-1	-4
0	-2
1	0
2	4

For $f(x) = (x-3)^2 + 1$, find the rate of change when $x_1 = 0$ and $x_2 = 3$

$(0, 10)$ $(3, 1)$

$\frac{10-1}{0-3} = -3$



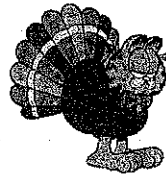
$j(0) = 5$



$x = -1$, if $j(x) = -2$



$h(2) = 4$



$x = 0$, if $h(x) = -2$

Given $f(x) = 3^x$, find the average rate of change when $x_1 = 0$ and $x_2 = 2$

$x_2 = 2$

$(0, 1)$ $(2, 9)$

$\frac{1-9}{0-2} = 4$

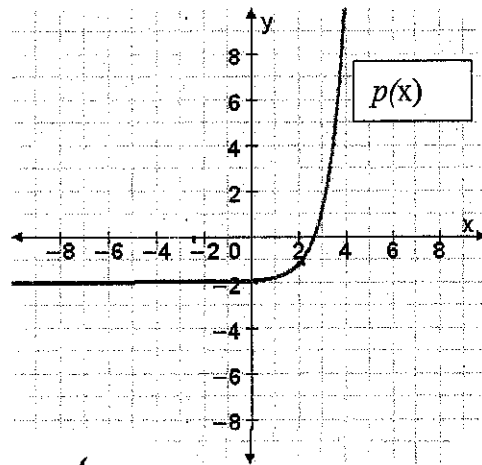
$3^0 = 1$
 $(3, 1)$
 $3^2 = 9$
 $(2, 9)$



For $f(x) = (x-1)^2 - 2$, find the rate of change when $x_1 = -2$ and $x_2 = 0$

$(-2, 7)$ $(0, -1)$

$\frac{7-(-1)}{-2-0} = -4$



x	r(x)
-2	1
-1	2
0	-2
1	-1
2	0

Given $f(x) = 5^x$, find the average rate of change when $x_1 = 0$ and $x_2 = 2$

$x_2 = 2$

$(0, 1)$ $(2, 25)$

$\frac{1-25}{0-5} = -\frac{24}{5}$



$p(2) = -1$



$x = 3$, if $p(x) = 1$



$r(2) = 0$



$x = 0$, if $r(x) = -2$