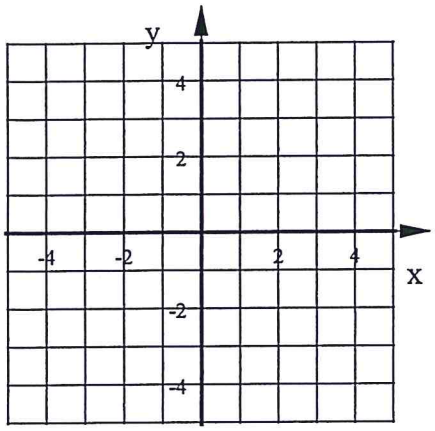
4+4/5+1

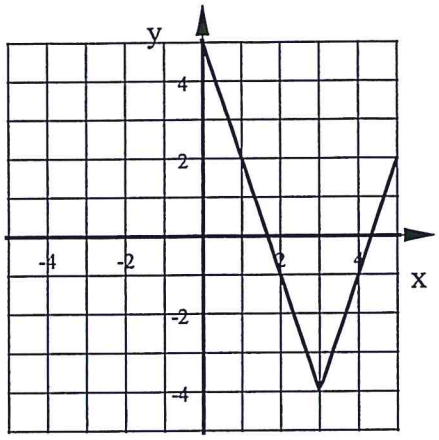
Algebra 1 Bellwork Thursday, December 17, 2015

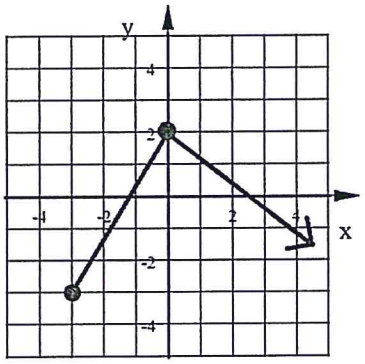
1. Graph this function with at least 5 points.

$y = -2(x+2)^2 + 5$



2. Write the equation of this graph.





Domain :

Range :

3. State the Domain and Range of this graph:

4. The value of a painting you own is dropping. The value of the painting is a function of how many years you've owned it. At first the painting was worth \$100,000. The price dropped \$1250 each year. Write a function rule to model this situation. Define your variables.

EQ: Variables:

a. In how many years will the painting be worth \$70,000?

5. Use these two functions: $h(c) = c^2 - 4$ *and* $p(a) = 7 - a$

Find $2h(-3) - 4p(-2)$

4th/5th

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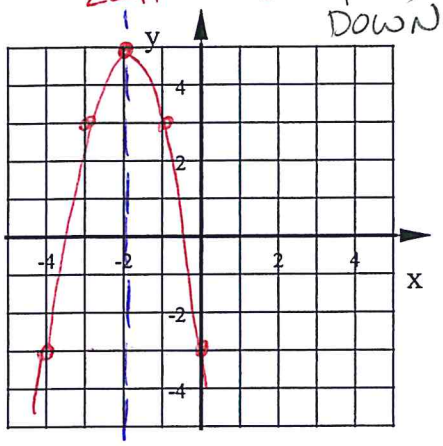
Answers

1. Graph this function with at least 5 points.

$y = -2(x+2)^2 + 5$

2 left 5 up opens DOWN

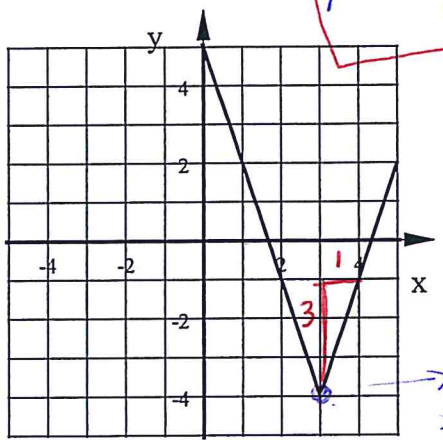


X	Y
-2	5
-1	3
0	-3
~~1~~	~~-13~~
~~2~~	~~-27~~

X	Y
-3	3
-4	-3

2. Write the equation of this graph.

$y = 3|x-3| - 4$



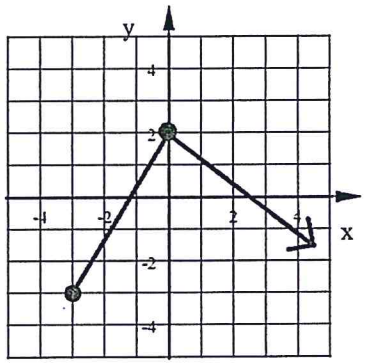
slope $= \frac{3}{1} =$

opens up

→ (3, -4)

3 RT

4 DOWN



Domain: $x \geq 3$

Range: $y \leq 2$

3. State the Domain and Range of this graph:

4. The value of a painting you own is dropping. The value of the painting is a function of how many years you've owned it. At first the painting was worth $100,000. The price dropped $1250 each year. Write a function rule to model this situation. Define your variables.

EQ: $V = 100{,}000 - 1250y$

Variables: V = Value of painting

y = # yrs

a. In how many years will the painting be worth $70,000?

$70{,}000 = 100{,}000 - 1250y$

$-100{,}000 \quad -100{,}000$

$-30{,}000 = -1250y$

$\frac{-30{,}000}{-1250} = \frac{-1250y}{-1250}$

$y = 24$ yrs

5. Use these two functions: $h(c) = c^2 - 4$ and $p(a) = 7 - a$

Find $2h(-3) - 4p(-2)$

$h(-3) = (-3)^2 - 4 = 9 - 4 = 5$

$2h(-3) = 2(5) = 10$

$p(-2) = 7 - (-2) = 9$

$-4p(-2) = -4(9) = -36$

$10 - 36$

-26