

Bellwork Alg 2 Tuesday, September 25, 2015

State the coordinates of the Vertex and the y-intercept for each Quadratic.

1. $y = -4x^2 + 24x$

Vertex:

2. $y = 5x^2 + 1$

Vertex:

3. $y = 4(x - 5)^2 + 13$

Vertex:

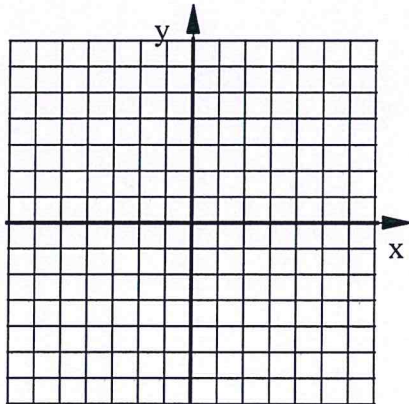
y-int:

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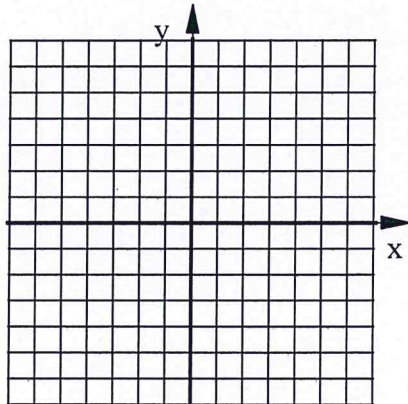
y-int:

Graph each quadratic using at least five points.

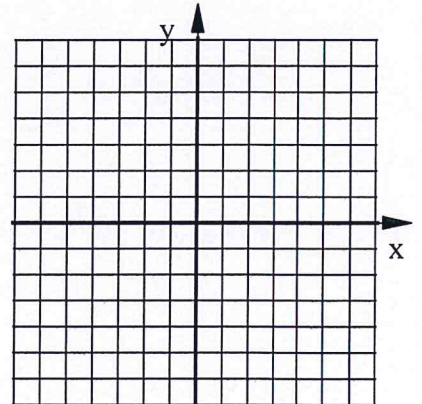
4. $y = -x^2 - 6x - 5$



5. $y = 2x^2 - 16x + 29$



6. $y = -3x^2 + 6$



State the coordinates of the Vertex and the y-intercept for each Quadratic.

1. $y = -4x^2 + 24x$

Vertex: $(3, 36)$

LOS: $x = \frac{-24}{2(-4)} = 3$

y-Coord: $= -4(3)^2 + 24(3)$
 $= -36 + 72$
 $= 36$

y-int: $= 0$

2. $y = 5x^2 + 1$

Vertex: $(0, 1)$

LOS: $x = \frac{0}{2(5)} = 0$

y-Coord: $= 5(0)^2 + 1$
 $= 0 + 1$
 $= 1$

y-int: $= 1$

3. $y = 4(x - 5)^2 + 13$

Vertex: $(5, 13)$

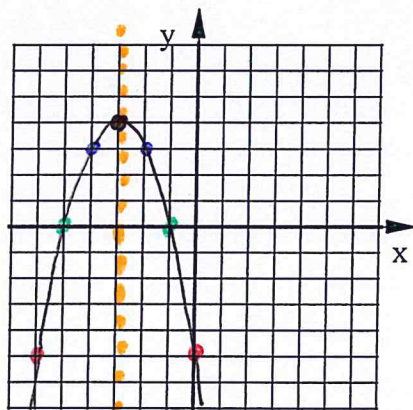
5 RT 13 UP

y-int: $= 4(0 - 5)^2 + 13$
 $= 4(-5)^2 + 13$
 $= 4(25) + 13$
 $= 100 + 13$

y-int: $= 113$

Graph each quadratic using at least five points.

4. $y = -x^2 - 6x - 5$



LOS: $x = \frac{6}{2(-1)} = \frac{6}{-2} = -3$

Vertex: $(-3, 4)$

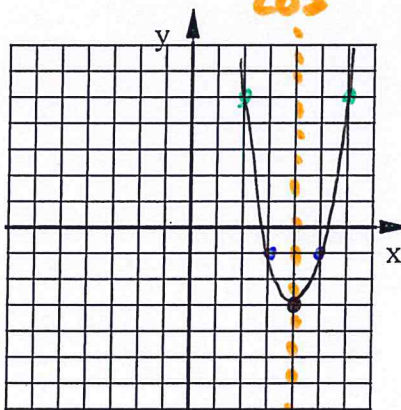
$= -(-3)^2 - 6(-3) - 5$
 $= -9 + 18 - 5$
 $= 4$

y-int: $= -5$

1st pt $\downarrow 1 \rightarrow \downarrow -1$

2nd pt $\downarrow 4 \rightarrow \downarrow -4$

5. $y = 2x^2 - 16x + 29$



LOS: $x = \frac{16}{2(2)} = \frac{16}{4} = 4$

Vertex: $(4, -3)$

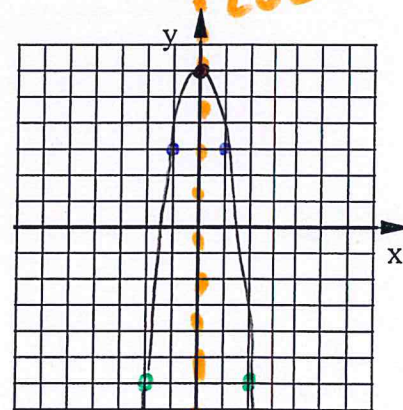
$= 2(4)^2 - 16(4) + 29$
 $= 32 - 64 + 29$
 $= -3$

y-int: $= 29$
 THIS DOESN'T FIT

1st pt $\downarrow 1 \rightarrow \downarrow 2$

2nd pt $\downarrow 4 \rightarrow \downarrow 5$

6. $y = -3x^2 + 6$



LOS: $x = \frac{0}{2(-3)} = 0$

Vertex: $(0, 6)$

$= -3(0)^2 + 6$
 $= 0 + 6$
 $= 6$

y-int: $= 6$ (same as vertex)

1st pt $\downarrow 1 \rightarrow \downarrow -3$

2nd pt $\downarrow 4 \rightarrow \downarrow -12$