

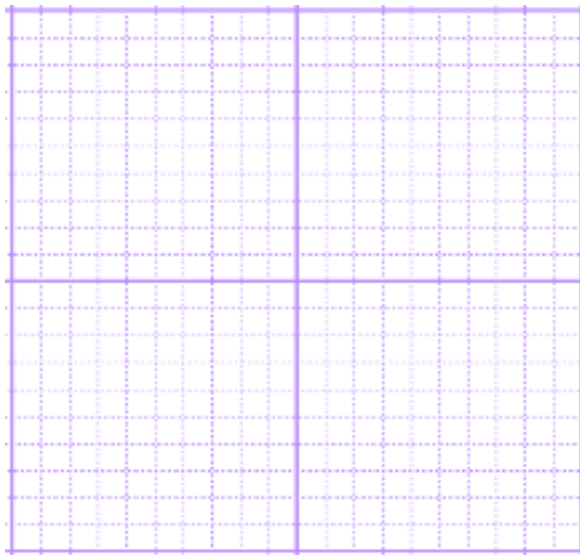
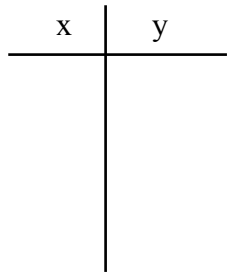
Review of Parabolas and Radicals

A. Graphical Form

#1 Identify the indicated information for each of the following.

$$y = -\frac{1}{3}(x + 3)^2 + 10$$

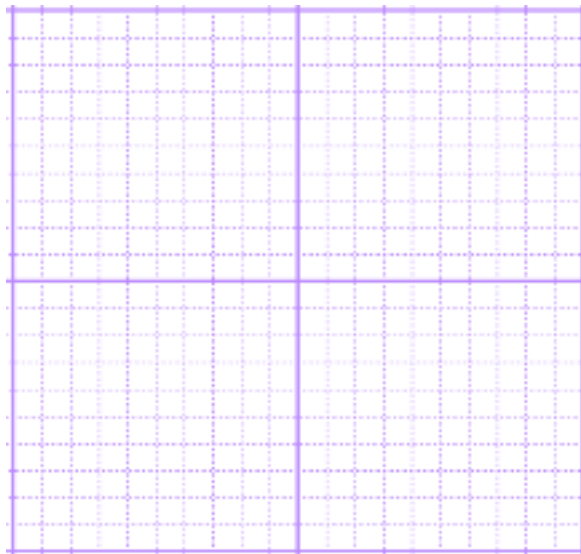
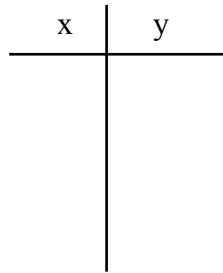
vertex (x , y) max min
 opens: upward downward
 obtuse acute standard
 $\Delta x =$



#2 Identify the indicated information for each of the following.

$$y = 3(x - 2)^2 - 7$$

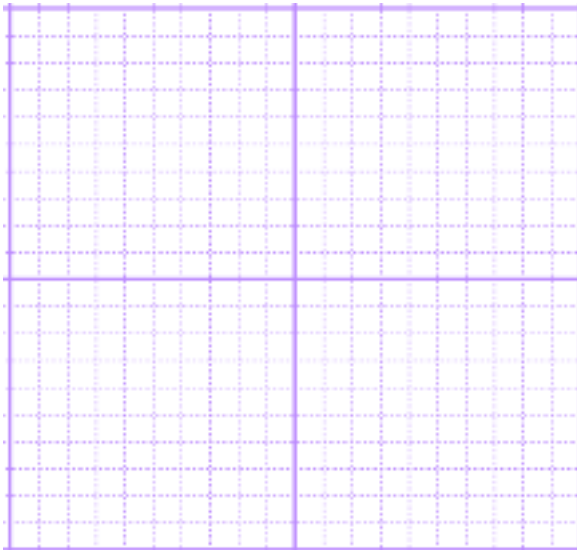
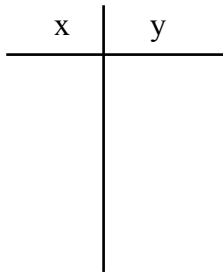
_____ vertex (x , y) max min _____
 _____ opens: upward downward _____
 _____ obtuse acute standard _____
 _____ $\Delta x =$ _____



#3 Identify the indicated information for each of the following.

$$y = -\frac{1}{11}(x + 5)^2 - 3$$

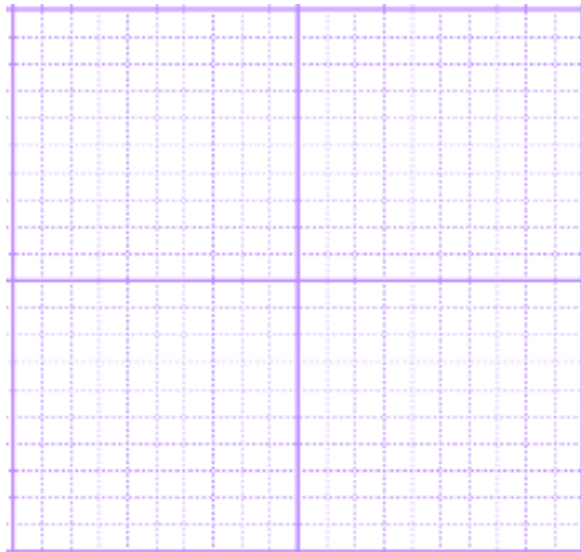
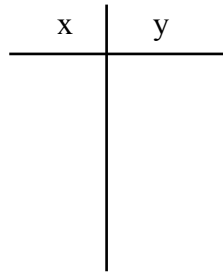
vertex (x , y) max min
 opens: upward downward
 obtuse acute standard
 $\Delta x =$



#4 Identify the indicated information for each of the following.

$$\#1 \quad y = x^2 - 6x + 11$$

_____ vertex (x , y) max min _____
 _____ opens: upward downward _____
 _____ obtuse acute standard _____
 _____ $\Delta x =$ _____



#5 Identify the indicated information for each of the following.

$$y = -\frac{3}{4}(x-2)^2 + 3$$

vertex (x , y) max min _____
 opens: upward downward _____
 obtuse acute standard _____
 $\Delta x =$ _____

B. Factoring Form to find Vertex and Zeroes

#1 $y = x^2 - 2x - 48$
 zeroes (,) ; (,)
 vertex (,)
 opens: upward downward

#6 Identify the indicated information for each of the following.

$$y = 2(x+4)^2 - 21$$

vertex (x , y) max min _____
 opens: upward downward _____
 obtuse acute standard _____
 $\Delta x =$ _____

#2 $y = 9x^2 + 18x - 7$
 zeroes (,) ; (,)
 vertex (,)
 opens: upward downward

#7 Identify the indicated information for each of the following.

$$y = -(x+7)^2 - 19$$

vertex (x , y) max min _____
 opens: upward downward _____
 obtuse acute standard _____
 $\Delta x =$ _____

#3 $y = -x^2 + 8x - 15$
 zeroes (,) ; (,)
 vertex (,)
 opens: upward downward

#4 $y = 4x^2 - 16x - 9$
 zeroes (,) ; (,)
 vertex (,)
 opens: upward downward

C. Completing the Square

Put each equation in the "graphing form"

$$y = a(x - h)^2 + k$$

#1 $y = -\frac{1}{2}x^2 - 8x - 2$

_____ vertex (x , y) max min
opens: upward downward
obtuse acute standard
 $\Delta x =$

#2 $y = \frac{1}{3}x^2 + 2x + 4$

_____ vertex (x , y) max min
opens: upward downward
obtuse acute standard
 $\Delta x =$

#3 $y = 2x^2 + 4x + 4$

_____ vertex (x , y) max min
opens: upward downward
obtuse acute standard
 $\Delta x =$

#4 $y = -7x^2 - 28x - 15$

_____ vertex (x , y) max min
opens: upward downward
obtuse acute standard
 $\Delta x =$

#5 $y = -x^2 + 12x - 6$

_____ vertex (x , y) max min
opens: upward downward
obtuse acute standard
 $\Delta x =$

#6 $y = \frac{1}{5}x^2 + 2x - 2$

_____ vertex (x , y) max min
opens: upward downward
obtuse acute standard
 $\Delta x =$

#7 $y = x^2 + 6x - 2$

_____ vertex (x , y) max min
opens: upward downward
obtuse acute standard
 $\Delta x =$

1. Find the distance between $(3, -1)$ and $(5, -7)$.

2. Find the distance between $(5, 2)$ and $(1, 3)$.

3. Find the midpoint of $(-11, 4)$ and $(-3, 8)$

4. Find the midpoint of $(9, -5)$ and $(-3, 13)$

D. Other Equations

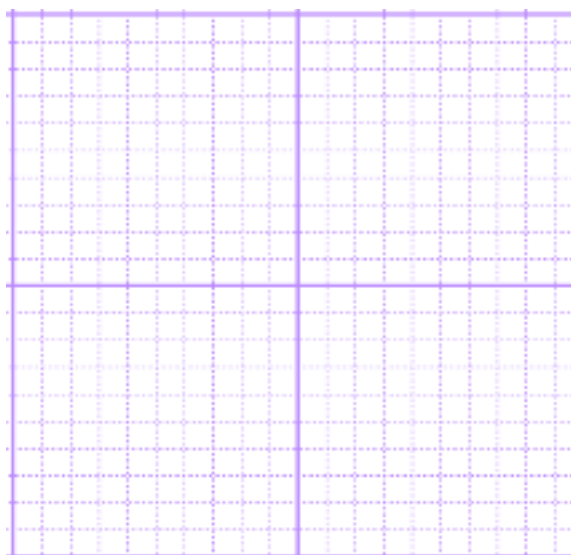
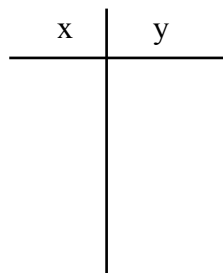
1. $x = 2(y + 1)^2 + 5$

vertex (x, y)

opens: right left

obtuse acute standard

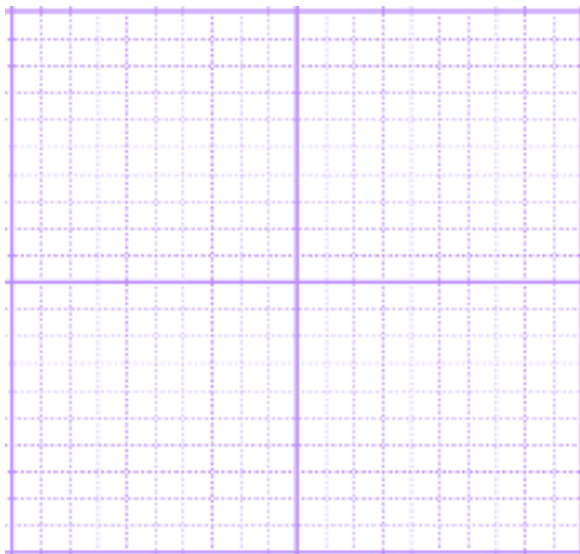
$\Delta y =$



4. $y = \sqrt{x-3}$

opens: right left

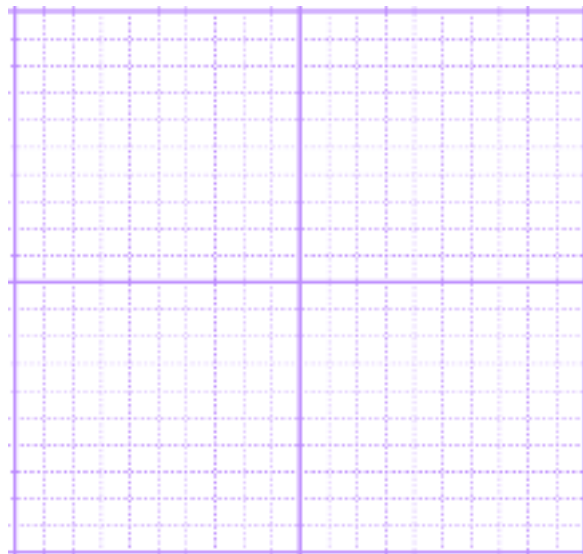
x	y
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5. $y = \sqrt{7-x}$

_____ opens: right left _____

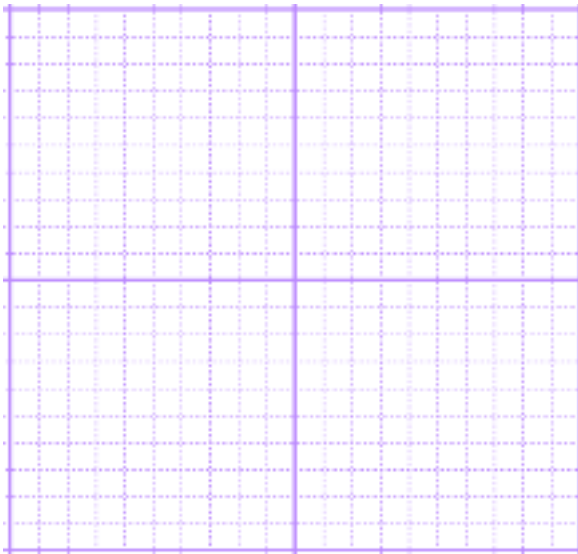
x	y
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6. $y = \sqrt{x+5}$

opens: right left

x	y
---	---



7. $y = \sqrt{9-x}$

_____ opens: right left _____

x	y
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