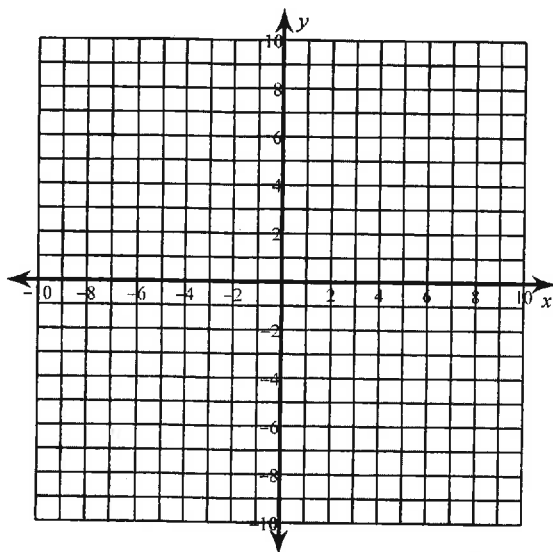


4.2 Graphing Quadratics in Vertex Form

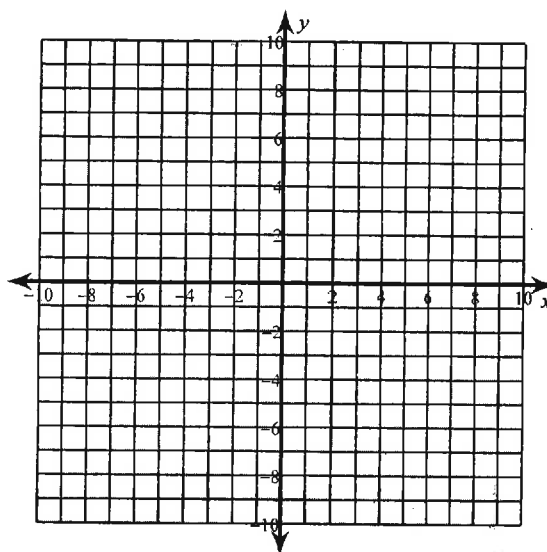
Period _____

Identify and list all transformations. Sketch the parent graph. Sketch the graph of the function using the transformations. Label all the following: Vertex, axis of symmetry (a.o.s.), maximum or minimum, Domain and Range.

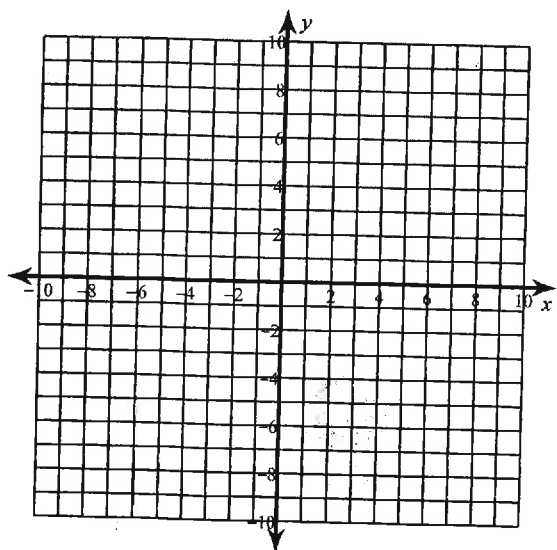
1) $y = -(x + 2)^2 - 1$



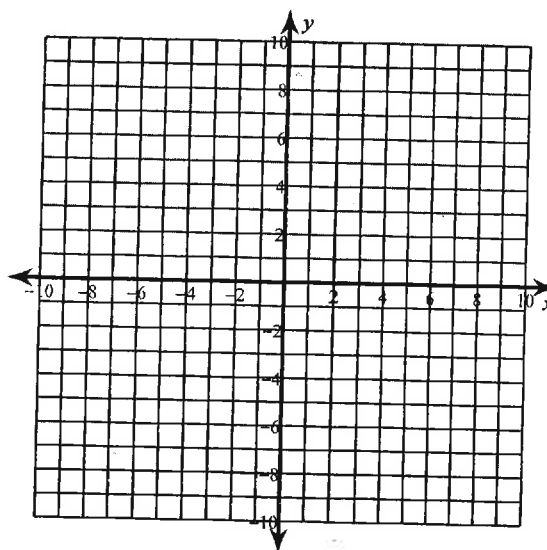
2) $y = (x + 1)^2 - 2$



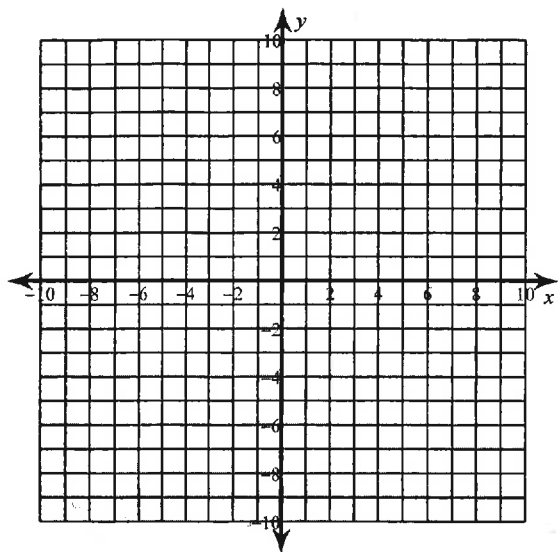
3) $y = 2(x + 3)^2 - 2$



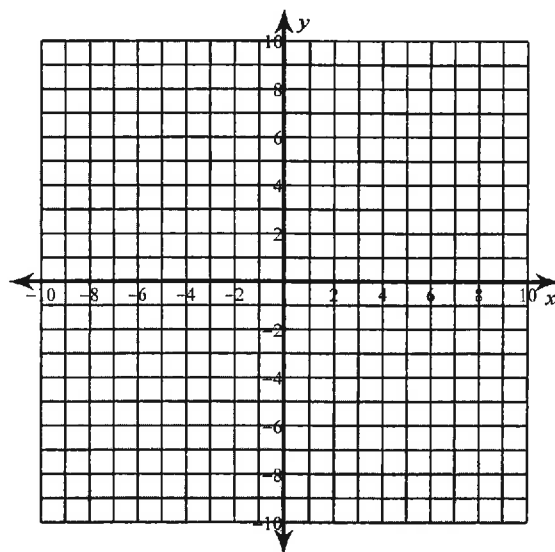
4) $y = -2(x - 1)^2 + 4$



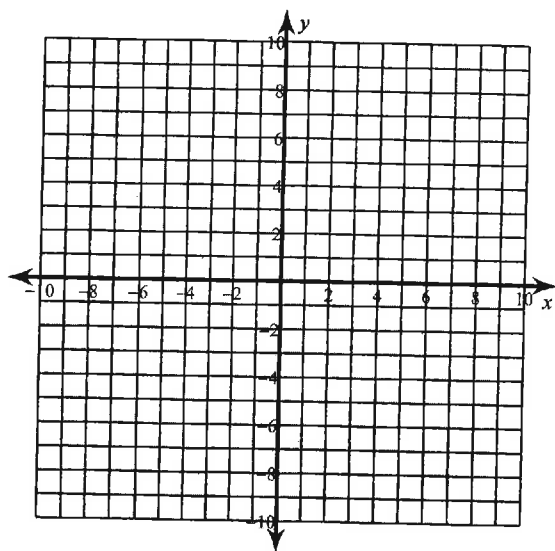
$$5) y = \frac{1}{2}(x+4)^2 - 4$$



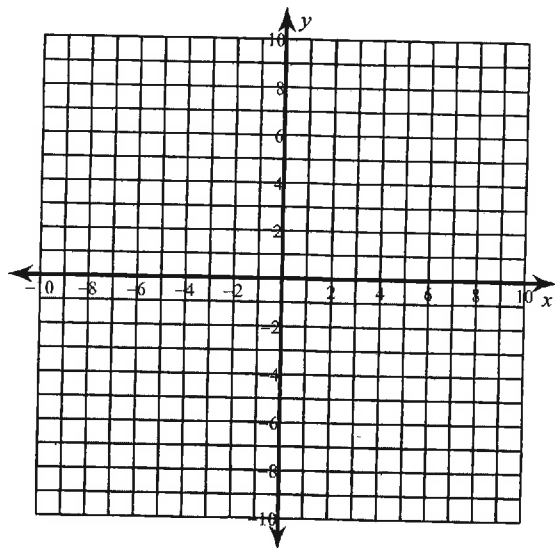
$$6) y = -\frac{1}{2}(x+2)^2 + 4$$



$$7) y = -3(x-4)^2 - 4$$



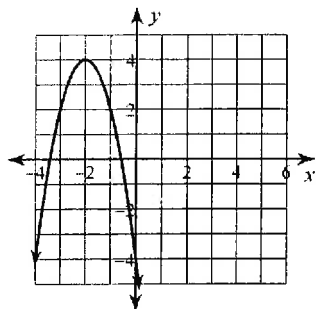
$$8) y = -\frac{1}{3}(x-3)^2 + 1$$



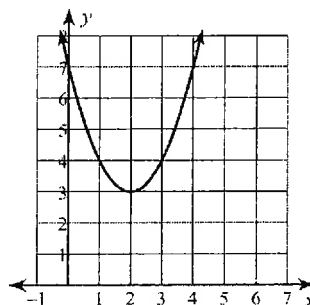
4.2 assignment page 3 2018

Use the given information to write each quadratic equation model in vertex form.

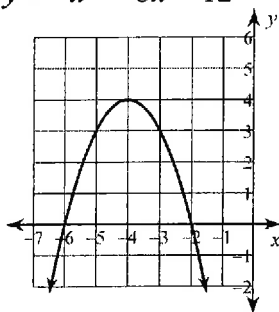
9) $y = -2x^2 - 8x - 4$



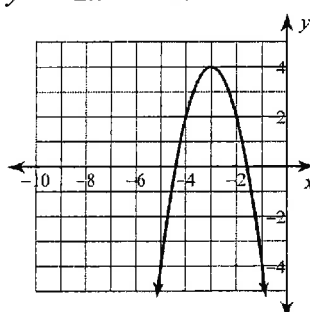
10) $y = x^2 - 4x + 7$



11) $y = -x^2 - 8x - 12$



12) $y = -2x^2 - 12x - 14$



13) vertex $(3, -2)$, point $(2, 3)$

14) vertex $\left(\frac{1}{2}, 1\right)$, point $(2, -8)$

15) vertex $(-4, -24)$, point $(-5, -25)$

16) $y = -3x^2 - 24x - 47$

17) $y = 2x^2 - 4x - 1$

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