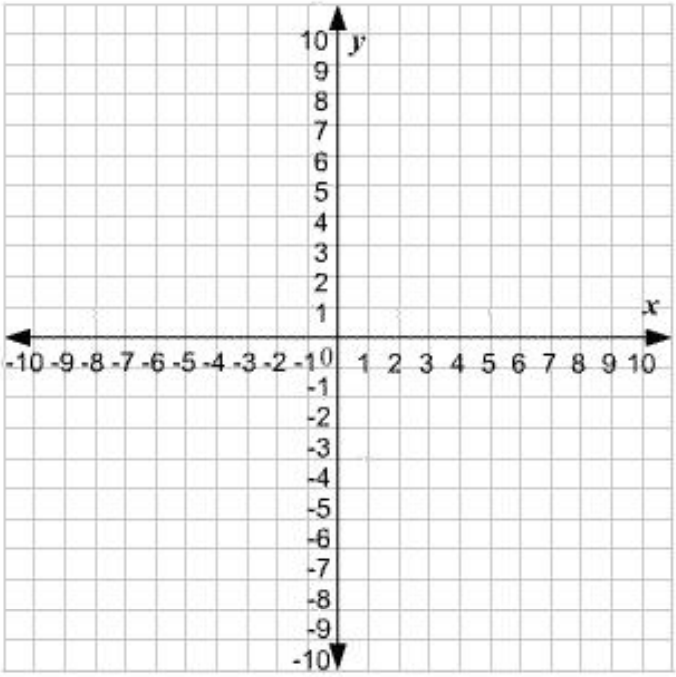
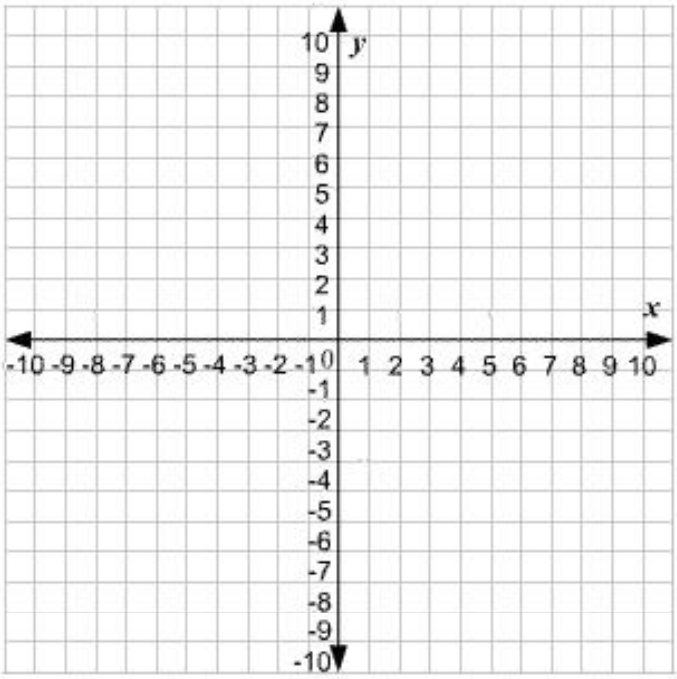
Math 10P 4.11 – Graphing Quadratics From Vertex Form

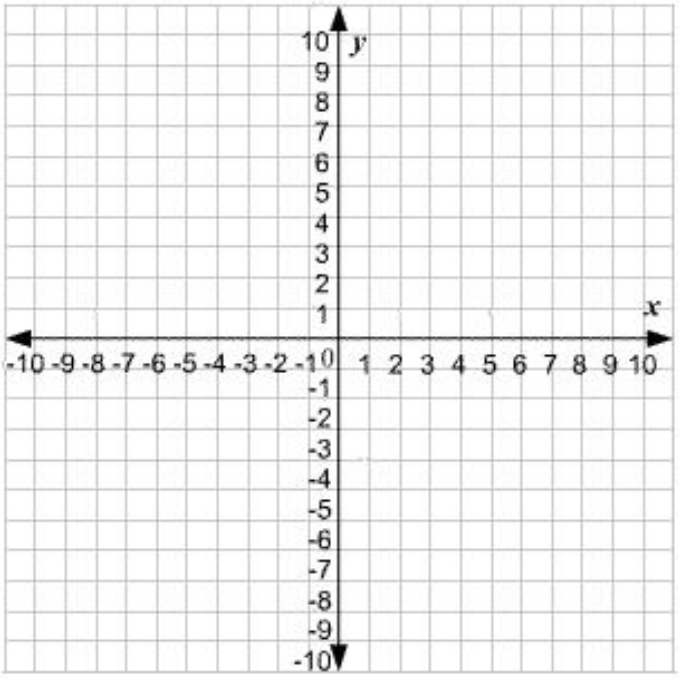


Recall that vertex form is: $y = a(x - h)^2 + k$

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



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



10P 4.11 Homework

For each question, list the a, h, and k, then create the necessary table of values. Graph the final result on the provided graph paper, labeling which graph is which.

1. $y = 2(x - 3)^2 + 6$

   a=

   h=

   k=

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

   a=

   h=

   k=

3. $y = \frac{1}{2}(x - 8)^2 - 10$

   a=

   h=

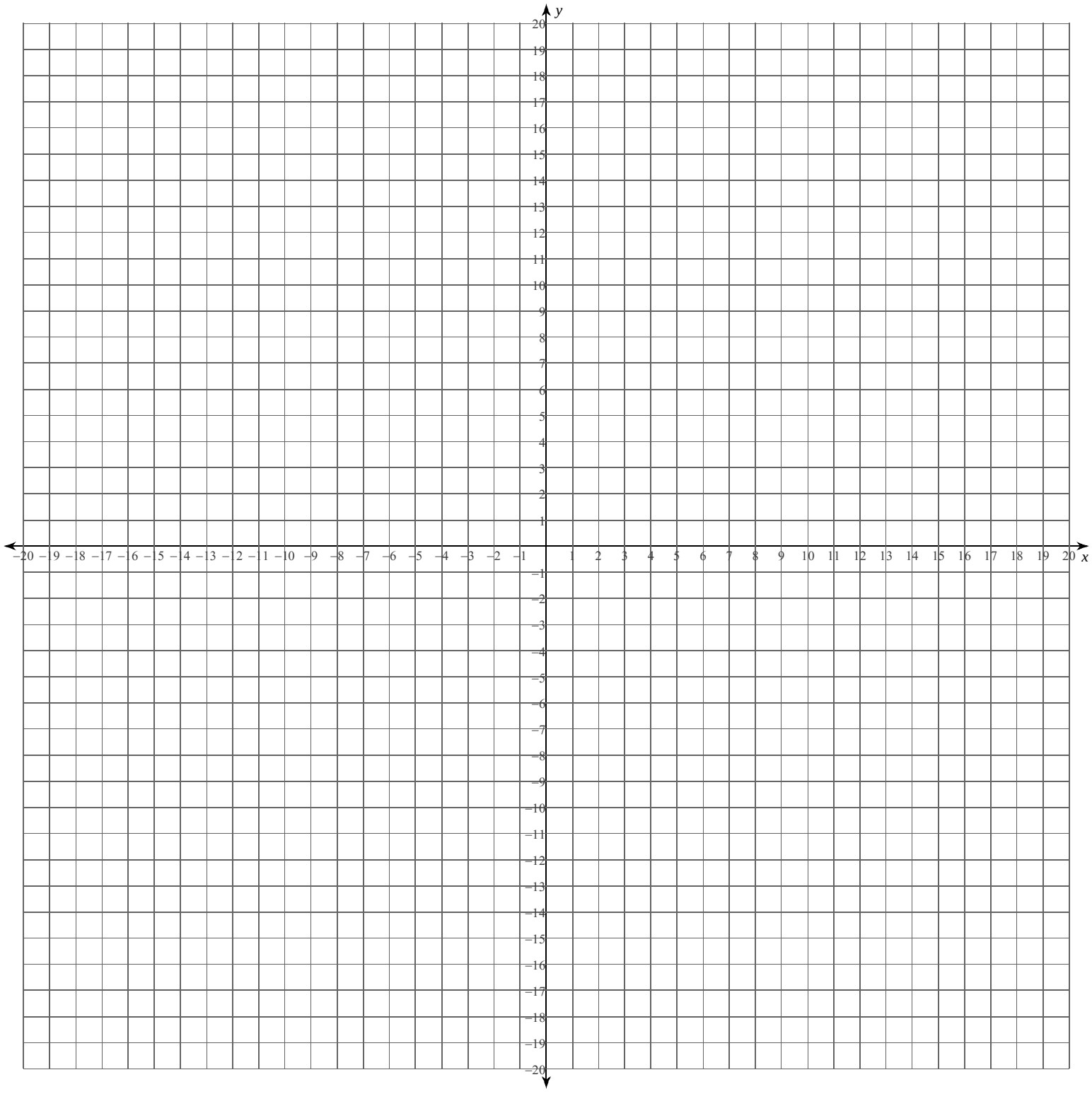
   k=

4. $y = -\frac{1}{2}(x + 9)^2 + 8$

   a=

   h=

   k=


y
x
20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
−20 −19 −18 −17 −16 −15 −14 −13 −12 −11 −10 −9 −8 −7 −6 −5 −4 −3 −2 −1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
−1 −2 −3 −4 −5 −6 −7 −8 −9 −10 −11 −12 −13 −14 −15 −16 −17 −18 −19 −20