

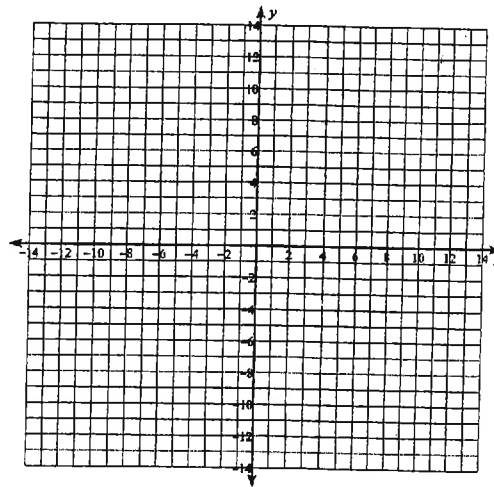
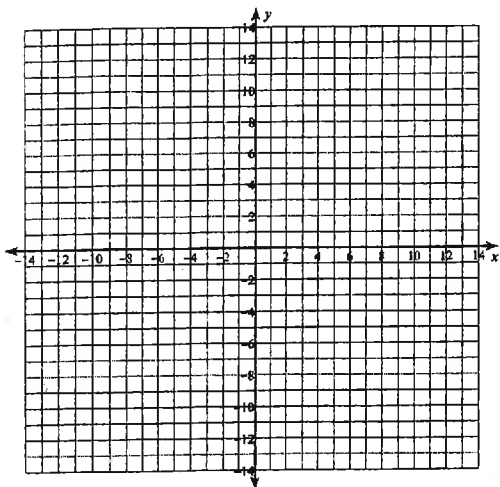
4.1-4.3 Review B: Graphing and Writing Quadratic Functions

Period _____

I. Use a table of values to sketch the graph of each function. Identify ALL critical information: a.o.s., vertex, min. or max. value, y-intercept, Domain & Range

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

2) $y = 3x^2 - 18x + 25$

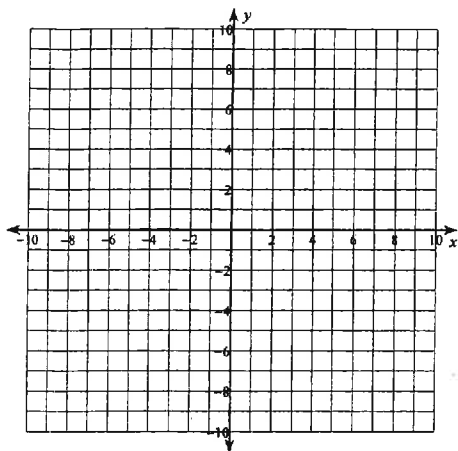


Identify ALL critical information: a.o.s., vertex, min. or max. value, y-intercept, Domain & Range

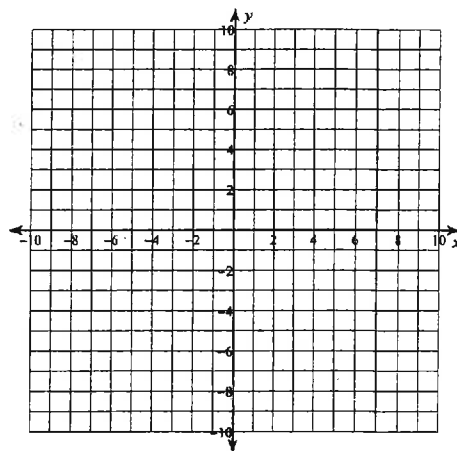
3) $y = x^2 - 4x + 6$

II. Sketch the parent function. Identify the transformations and the vertex. Give ^{the} range for each and the max/min value. Then sketch the graph of each function.

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



5) $y = -3(x + 4)^2 + 10$



Rewrite each equation in vertex form.

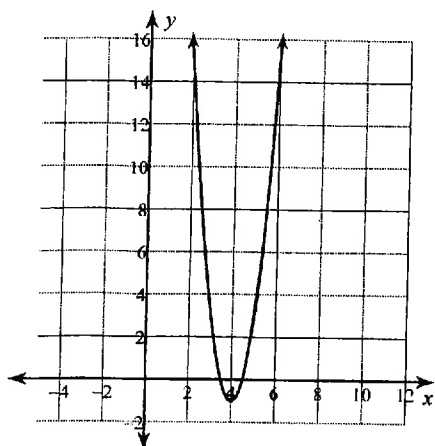
6) $y = \frac{1}{2}x^2 - 4x + 10$

7) $y = 2x^2 + 16x + 33$

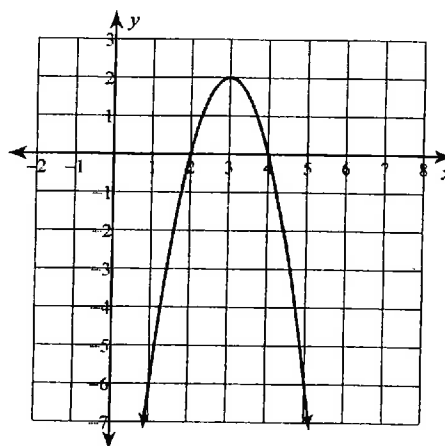
8) $y = -x^2 + 4x - 5$

Use the graph to write the equation for each in vertex form.

9)



10)



Use the given vertex and point to write the equation for the quadratic function in VERTEX FORM.

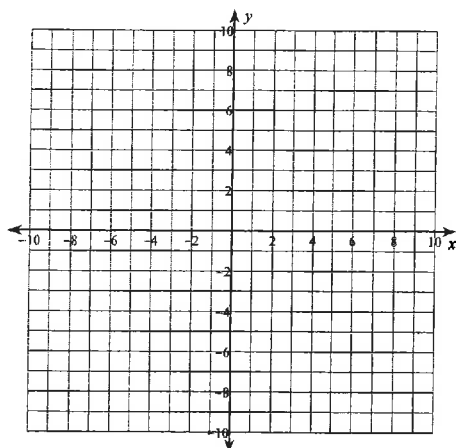
11) vertex (1, 3) through point (3, 11)

12) vertex (-2, 1) through point (3, 21)

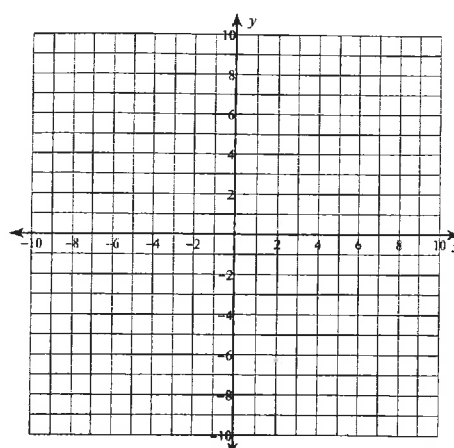
13) vertex (4, -2) through point (9, -17)

III. Identify the x-intercepts, the a.o.s, the vertex and sketch a graph. Give the Range.

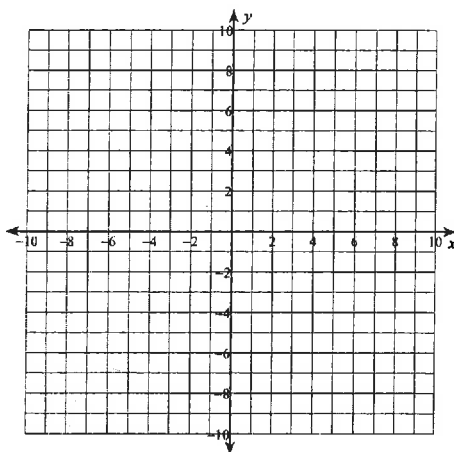
14) $y = \frac{1}{2}(x+3)(x-5)$



15) $y = -4(x-3)(x-5)$

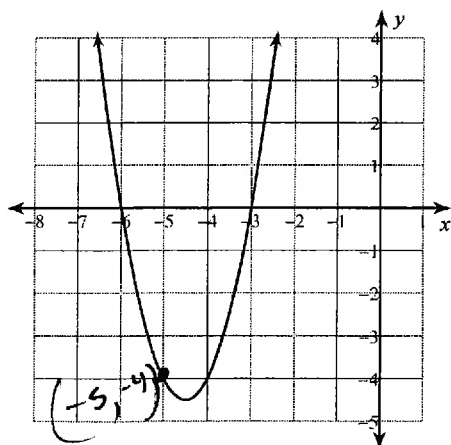


16) $y = (x-8)(x-2)$

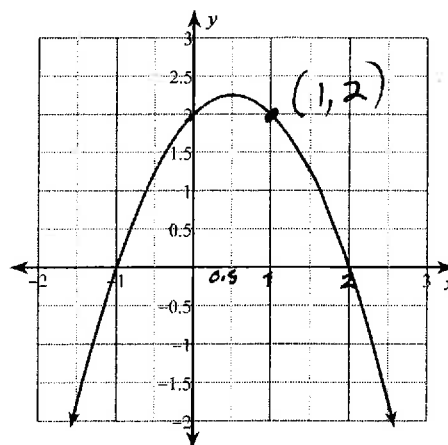


Use the graph to identify the x-intercepts and then write a quadratic equation in INTERCEPT FORM.

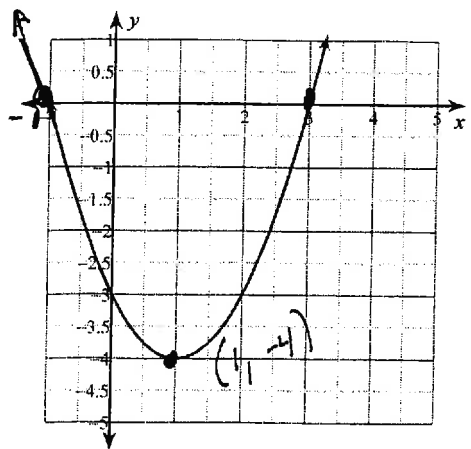
17)



18)



19)



Use the given x-intercepts to write a quadratic equation in STANDARD FORM. Assume $a = 1$.

20) $(6, 0)$ and $(-2, 0)$