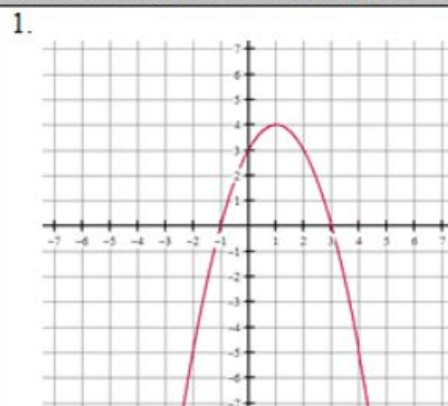


12.2 Solve Quadratics by Graphing

PRACTICE

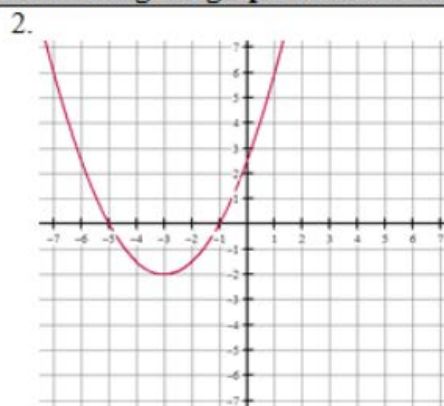
Find the coordinates of the zeros and vertex using the graph of the function.



Zeros: $x = -1, 3$

Vertex: $(1, 4)$

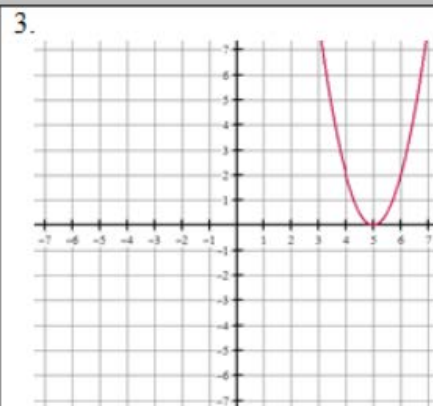
Is the vertex a maximum or minimum?



Zeros: $x = -5, -1$

Vertex: $(-3, -2)$

Is the vertex a maximum or minimum?



Zeros: $x = 5$

Vertex: $(5, 0)$

Is the vertex a maximum or minimum?

Find the roots and vertex of the function by graphing. Sketch a rough graph. Round to the nearest hundredth.

4. $f(x) = -x^2 - 3x + 4$

Roots:

$x = -4, 1$

Vertex:

$(-1.5, 6.25)$



Is the vertex a maximum or minimum?

5. $f(x) = \frac{1}{2}x^2 + 4x + 5$

Roots:

$x = -6.45, -1.55$

Vertex:

$(-4, -3)$



Is the vertex a maximum or minimum?

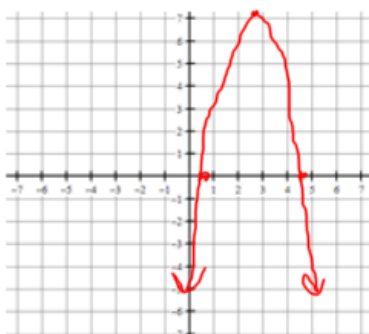
6. $f(x) = -2x^2 + 11x - 8$

Roots:

$x = 0.86, 4.64$

Vertex:

$(2.75, 7.125)$



Is the vertex a maximum or minimum?

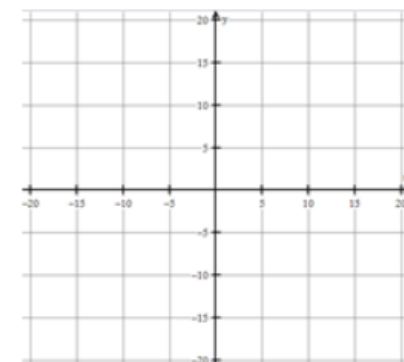
7. $f(x) = 0.2x^2 + 3x - 5$

Roots:

$x = -16.51, 1.51$

Vertex:

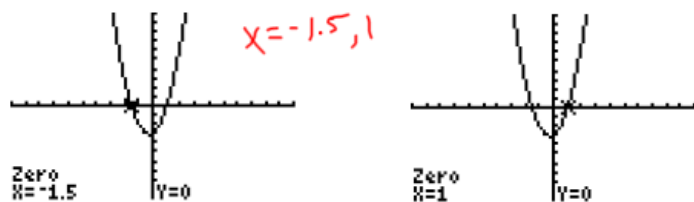
$(-7.5, -16.25)$



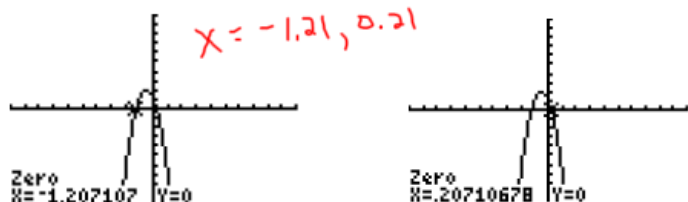
Is the vertex a maximum or minimum?

Solve the equation by graphing. Round to the nearest hundredth.

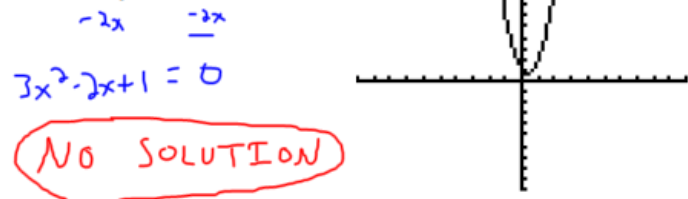
8. $2x^2 + x - 3 = 0$



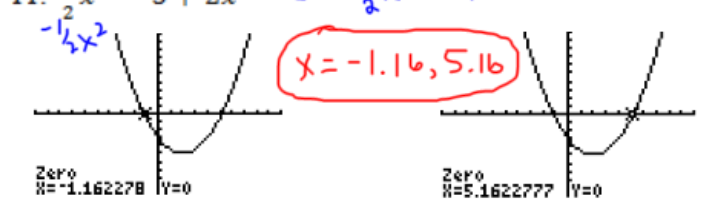
9. $-4x^2 - 4x + 1 = 0$



10. $3x^2 + 1 = 2x$

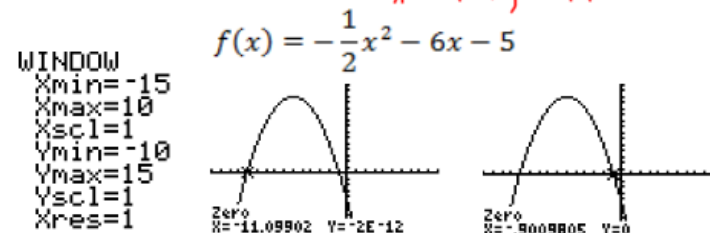


11. $\frac{1}{2}x^2 = 3 + 2x$

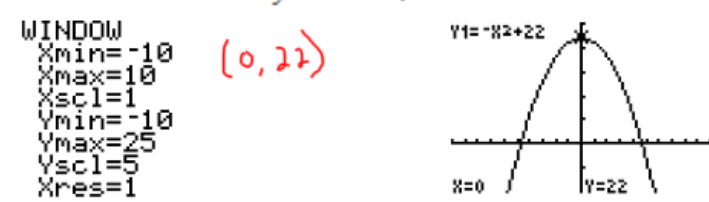


Graph to answer the following. Round to the nearest hundredth.

12. Find the zeros of



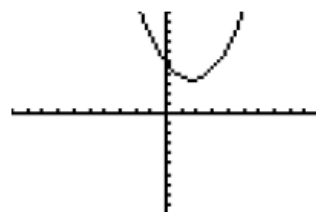
13. What is the maximum point for
 $y = -x^2 + 22$



14. Explain why there is no solution to the following:

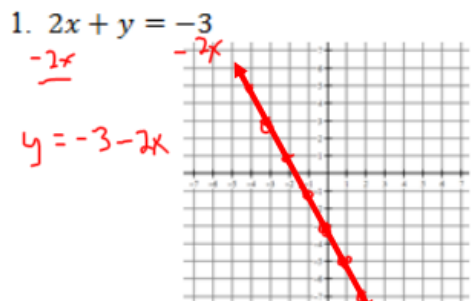
$f(x) = 0.6x^2 - 2x + 5$

Doesn't cross the x-axis



SKILLZ REVIEW

GRAPH



FACTOR

2. $x^2 + 2x - 80$

$(x+10)(x-8)$

$\frac{2}{10} \frac{-8}{-80}$

RADICALS

3. Simplify

$\sqrt{75}$

$\sqrt{25 \cdot 3}$

$5\sqrt{3}$

4. $x - 2y = 10$

5. $2x^2 - 5x - 3$

6. Simplify

$\frac{2}{\sqrt{2}}$

TRY THESE!

IF YOU CAN'T GET THEM, WATCH THE SKILLZ REVIEW VIDEO FOR HELP!