

Graph and fill in the requested information. (7-bullet point list for #1-4)

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

2. $y = 2x^2 + 8x + 4$

Vertex:

Max or Min

x-intercepts:

x-intercept type:

Vertex Form:

Transformations:

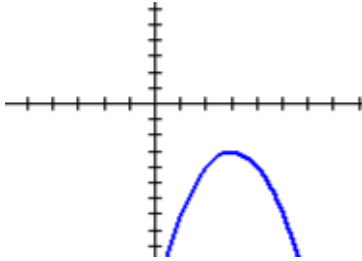
Sketch Graph

3. $y = 3(x+1)^2 - 5$

4. $g(x) = -\frac{1}{2}(x+3)(x-2)$

Write an equation, identify the transformations and vertex.

5.



Write a possible equation given the x-intercepts.

6. $x = -2 \pm 3i\sqrt{5}$

7. $x = \pm 3$

8. $x = -1 \pm 5i$

Solve the following radical and rational equations.

9. $2x^{3/4} = 250$

10. $x + 4 = \sqrt{2x}$

11. $x - 4 = \sqrt{2x}$

12. $3\sqrt[3]{x} + 4 = 9$

13. $\sqrt[3]{2x+1} + \sqrt[3]{6x} = 0$

14. $\sqrt[4]{3x+2} - \sqrt[4]{2x-7} = 0$

15. $9x^{2/3} = 81$

16. $x^{3/4} + 2 = 8$

17. $(x+5)^{3/2} = -10$

18. $\sqrt{7x+15} = x+3$

19. $\sqrt[3]{3x+7} - 4\sqrt[3]{2x+1} = 0$

20. $\sqrt{x-2} = \sqrt{2x+4}$