

6.3 Completing the Square**Corrective Assignment**

NAME: _____

DATE: _____

Solve the equation by completing the square.

1. $x^2 + 14x = -45$

2. $r^2 - 4r + 49 = 0$

3. $b^2 + 8b + 85 = -10$

4. $n^2 + 6n = 72$

5. $3v^2 + 12v = -6$

6. $4r^2 - 16r - 20 = -5$

Write the quadratic function in vertex form.

7. $y = x^2 + 4x + 3$

8. $y = 2x^2 + 12x + 22$

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

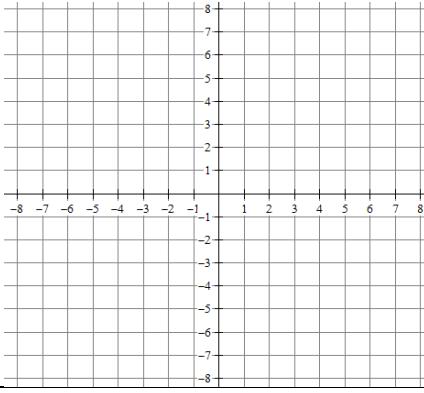
10. $y = x^2 + 4x + 7$

11. $y = -x^2 - 2x - 3$

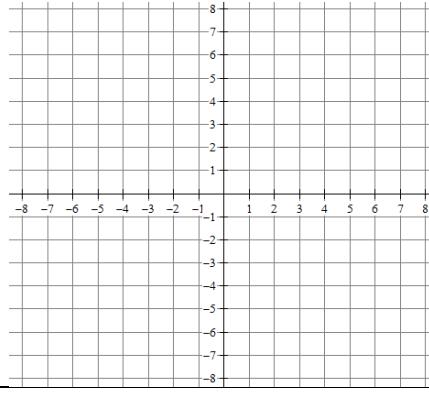
12. $y = -2x^2 - 12x - 21$

Write the quadratic function in vertex form. Find the roots. Graph it! Label the vertex and roots.

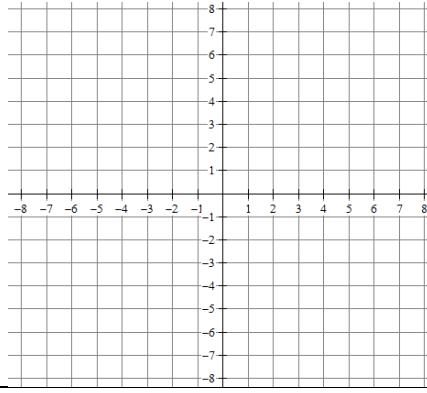
13. $y = x^2 + 4x + 2$



14. $y = 2x^2 - 16x + 30$



15. $y = -x^2 - 4x - 2$



ANSWERS TO 6.3 CORRECTIVE ASSIGNMENT

1. $-5, -9$

2. $2 \pm 3i\sqrt{5}$

3. $-4 \pm i\sqrt{79}$

4. $6, -12$

5. $-2 \pm \sqrt{2}$

6. $2 \pm \frac{\sqrt{31}}{2}$

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

8. $y = 2(x + 3)^2 + 4$

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

10. $y = (x + 2)^2 + 3$

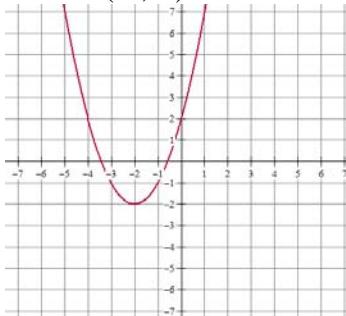
11. $y = -(x + 1)^2 - 2$

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

13. $y = (x + 2)^2 - 2$

Roots = $-2 \pm \sqrt{2}$

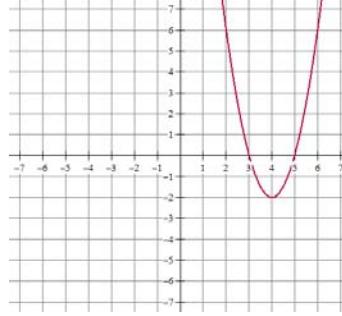
Vertex = $(-2, -2)$



14. $y = 2(x - 4)^2 - 2$

Roots = 3, 5

Vertex = $(4, -2)$



15. $y = -(x + 2)^2 + 2$

Roots = $-2 \pm \sqrt{2}$

Vertex = $(-2, 2)$

