Day 2 – Solving by Factoring   **Name:** _____

Practice Assignment   **Date:** _____ **Block:** _____

Solve the quadratic equation to find it zeros.

1. $x^2 + 3x - 4 = 0$

2. $2x^2 - 7x - 4 = 0$

3. $x^2 - 64 = 0$

4. $6x^2 + 16x - 6 = 0$

5. $(x - 4)(3x + 2) = 0$

6. $x^2 - 7x = 8$

7. $(x + 2)(x - 6) = 0$

8. $x^2 + 9x = 0$

9. $x^2 - 2x = 15$

10. $3x^2 - x - 8 = -6$

11. $4x^2 = -12x$

12. $3x^2 - 21x + 16 = -2$
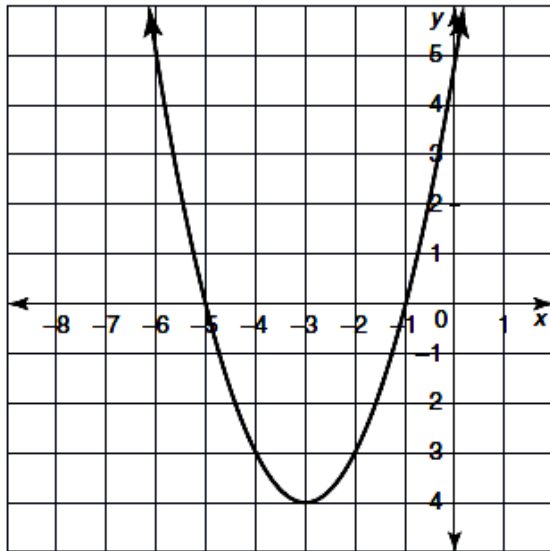
Calculate the zeros of the following functions:

13. $f(x) = (x + 7)(x - 4)$ 14. $f(x) = (x - 5)(x - 5)$ 15. $f(x) = 3x(x + 4)$

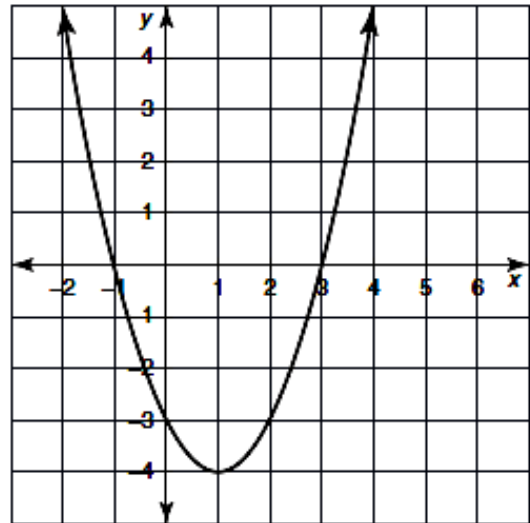**Write an equation to represent the graphs below:**

16.

17.

Zeros: _____   Zeros: _____

y = _____   y = _____

Write a function in both factored and standard form for the given zeros:

18. Zeros: x = 4 and -5; opens down   19. Zeros: x = 0 and 2; opens up

Intercept Form: _____   Intercept Form: _____

Standard Form: _____   Standard Form: _____

20. What are the factors and zeros of $2x^2 + 17x + 30 = 0$?