3.2

Name _____ Date _____ Period _____

SM3 Solving Quadratics

Solve each equation by factoring.

1. $x^2 + 3x - 10 = 0$

2. $3x^2 - 7x - 6 = 0$

3. $x^2 - 36 = 0$

4. $-12 = x^2 + 10x + 12$

5. $0 = (x-5)(x+2)(2x+1)$

6. $(x+7)(x^2-25) = 0$

7. $x^2 + 5x + 18 = -6x$

8. $5x^2 = 30x$

9. $30x = -2x^3 + 16x^2$

10. $10x^2 + 6x - 4 = 0$

Solve each equation using the quadratic formula. HINT: $x = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$

11. $-4x^2 + 3x + 1 = 0$
$a =$ _____ $b =$ _____ $c =$ _____

12. $0 = x^2 - 8x - 4$
$a =$ _____ $b =$ _____ $c =$ _____

13. $0 = x^2 - 2$
$a =$ ____ $b =$ _____ $c =$ _____

14. $13 = 3x^2 + 6x$
$a =$ _____ $b =$ _____ $c =$ _____

15. $3x^2 - 6x - 24 = 0$
$a =$ _____ $b =$ _____ $c =$ _____

16. $-3x^2 + 9x = -9$
$a =$ _____ $b =$ _____ $c =$ _____

17. $11x = 4x^2 - 3$
$a =$ _____ $b =$ _____ $c =$ _____

18. $2x^2 + 3x - 3 = 0$
$a =$ _____ $b =$ _____ $c =$ _____