

Name: _____

Date: _____

Solving Quadratics by Factoring **Answers**

Section I. Solve each quadratic by factoring.

1. $y = x^2 + 8x + 15$

$$x = \{-5, -3\}$$

2. $y = x^2 - 5x - 14$

$$x = \{-2, 7\}$$

3. $y = x^2 + 3x - 18$

$$x = \{-6, 3\}$$

4. $y = x^2 - 12x + 20$

$$x = \{2, 10\}$$

5. $y = x^2 + 3x - 10$

$$x = \{-5, 2\}$$

6. $y = 6x^2 + 5x + 1$

$$x = \left\{-\frac{1}{2}, -\frac{1}{3}\right\}$$

7. $y = x^2 - 5x - 36$

$$x = \{-4, 9\}$$

8. $y = x^2 - 9$

$$x = \{-3, 3\}$$

9. $y = 4x^2 + 27x - 7$

$$x = \left\{-7, \frac{1}{4}\right\}$$

10. $y = 4x^2 - 9x + 5$

$$x = \left\{1, \frac{5}{4}\right\}$$

11. $y = x^2 + 6x + 9$

$$x = \{-3\}$$

12. $y = x^2 - 25$

$$x = \{-5, 5\}$$

13. $2x^2 + 23x = -45$

$$x = \left\{-9, -\frac{5}{2}\right\}$$

14. $y = x^2 - 8x + 16$

$$x = \{4\}$$

15. $y = x^2 + 5x - 24$

$$x = \{-8, 3\}$$

16. $y = x^2 - 16x - 36$

$$x = \{-2, 18\}$$

17. $y = x^2 - 256$

$$x = \{-16, 16\}$$

18. $3x^2 - 7x = 6$

$$x = \left\{-\frac{2}{3}, 3\right\}$$

19. $y = x^2 - 14x + 49$

$$x = \{7\}$$

20. $y = 3x^2 + x - 10$

$$x = \left\{-2, \frac{5}{3}\right\}$$

