

Solving Quadratic Equations (H)

Name: _____

Date: _____

Solve each equation for x.

1. $2x^2 - 14x - 36 = 0$

11. $-4x^2 + 36x - 80 = 0$

2. $3x^2 - 39x + 120 = 0$

12. $3x^2 + 12x + 9 = 0$

3. $-4x^2 - 28x - 40 = 0$

13. $-4x^2 - 4x + 224 = 0$

4. $5x^2 + 60x + 160 = 0$

14. $4x^2 - 100 = 0$

5. $5x^2 - 35x - 40 = 0$

15. $-5x^2 - 20x - 15 = 0$

6. $-5x^2 + 5x + 210 = 0$

16. $4x^2 - 256 = 0$

7. $5x^2 - 20 = 0$

17. $-2x^2 + 22x - 36 = 0$

8. $2x^2 + 4x - 48 = 0$

18. $2x^2 - 6x + 4 = 0$

9. $-5x^2 - 70x - 240 = 0$

19. $5x^2 + 5x - 30 = 0$

10. $-4x^2 - 8x + 140 = 0$

20. $3x^2 - 42x + 147 = 0$

Solving Quadratic Equations (H) Answers

Name: _____

Date: _____

Solve each equation for x.

1. $2x^2 - 14x - 36 = 0$

$$2(x+2)(x-9) = 0$$

$$x = -2, 9$$

2. $3x^2 - 39x + 120 = 0$

$$3(x-5)(x-8) = 0$$

$$x = 5, 8$$

3. $-4x^2 - 28x - 40 = 0$

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

$$x = -2, -5$$

4. $5x^2 + 60x + 160 = 0$

$$5(x+4)(x+8) = 0$$

$$x = -4, -8$$

5. $5x^2 - 35x - 40 = 0$

$$5(x+1)(x-8) = 0$$

$$x = -1, 8$$

6. $-5x^2 + 5x + 210 = 0$

$$-5(x-7)(x+6) = 0$$

$$x = 7, -6$$

7. $5x^2 - 20 = 0$

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

$$x = -2, 2$$

8. $2x^2 + 4x - 48 = 0$

$$2(x-4)(x+6) = 0$$

$$x = 4, -6$$

9. $-5x^2 - 70x - 240 = 0$

$$-5(x+8)(x+6) = 0$$

$$x = -8, -6$$

10. $-4x^2 - 8x + 140 = 0$

$$-4(x+7)(x-5) = 0$$

$$x = -7, 5$$

11. $-4x^2 + 36x - 80 = 0$

$$-4(x-5)(x-4) = 0$$

$$x = 5, 4$$

12. $3x^2 + 12x + 9 = 0$

$$3(x+1)(x+3) = 0$$

$$x = -1, -3$$

13. $-4x^2 - 4x + 224 = 0$

$$-4(x-7)(x+8) = 0$$

$$x = 7, -8$$

14. $4x^2 - 100 = 0$

$$4(x+5)(x-5) = 0$$

$$x = -5, 5$$

15. $-5x^2 - 20x - 15 = 0$

$$-5(x+3)(x+1) = 0$$

$$x = -3, -1$$

16. $4x^2 - 256 = 0$

$$4(x-8)(x+8) = 0$$

$$x = 8, -8$$

17. $-2x^2 + 22x - 36 = 0$

$$-2(x-9)(x-2) = 0$$

$$x = 9, 2$$

18. $2x^2 - 6x + 4 = 0$

$$2(x-2)(x-1) = 0$$

$$x = 2, 1$$

19. $5x^2 + 5x - 30 = 0$

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

$$x = -3, 2$$

20. $3x^2 - 42x + 147 = 0$

$$3(x-7)(x-7) = 3(x-7)^2 = 0$$

$$x = 7$$