

Assessment Title: Solving Quadratic Equations
Unit 3: Quadratic Functions Working with Equations

Learning Targets:

- I can solve quadratic equations using a variety of methods.

Name: _____

Part I: Solve each quadratic equation for x. Indicate the method you chose to solve and explain why you chose that method.

1. $(x + 2)(x - 3) = 0$

2. $x^2 - 24x + 144 = 0$

Method: _____
Explain: _____

Method: _____
Explain: _____

3. $x^2 = 81$

4. $x^2 - 5x - 50 = 0$

Method: _____
Explain: _____

Method: _____
Explain: _____

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5. $x^2 + 14x = 32$

6. $x^2 - 8 = 0$

Method: _____
Explain: _____

Method: _____
Explain: _____

7. $x^2 + 14x - 51 = 0$

8. $6x^2 + 3x - 3 = 0$

Method: _____
Explain: _____

Method: _____
Explain: _____

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Part II: Write a quadratic equation with the given characteristics.

9. x-intercepts at $x = 2$ and $x = -7$

Quadratic Equation: _____

10. Only one x-intercept at $x = 3$

Quadratic Equation: _____