



Square Root Method

Version 1

Name: _____

Date: _____

Score: _____

Direction: Solve each quadratic equation using the square root method. Show your work in the space provided.

1) $7x^2 + 3 = -x^2 + 15$

2) $-2(x^2 + 1) = 6(-2x^2 + 3)$

3) $7(x^2 + 3) - 3(2x^2 - 2) = 127$

4) $-2(x^2 - 7)^2 + 3 = -47$



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Direction: Solve each quadratic equation using the square root method. Show your work in the space provided.

1) $7x^2 + 3 = -x^2 + 15$

$$x_1 = \frac{\sqrt{6}}{2}, x_2 = -\frac{\sqrt{6}}{2}$$

2) $-2(x^2 + 1) = 6(-2x^2 + 3)$

$$x_1 = \sqrt{2}, x_2 = -\sqrt{2}$$

3) $7(x^2 + 3) - 3(2x^2 - 2) = 127$

$$x_1 = 10, x_2 = -10$$

4) $-2(x^2 - 7)^2 + 3 = -47$

$$x_1 = 2\sqrt{3}, x_2 = -2\sqrt{3}, x_3 = \sqrt{2}, x_4 = -\sqrt{2}$$