

Name : _____

Solving Quadratic Equations

Sheet 1

Solve each quadratic equation using substitution.

1) $5 = -7(\sqrt{3}x)^2 + 12(\sqrt{3}x)$

2) $5(2u)^2 + 9 = 14(2u)$

3) $7(w + 1)^2 + 5 = 12(w + 1) - 10 = 0$

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5) $(-7 + 3v)^2 + 12(-7 + 3v) - 14 = 0$

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$5 - 14(6y + 2)$

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Answer key

Solving Quadratic Equations

Sheet 1

Solve each quadratic equation using substitution.

1) $5 = -7(\sqrt{3}x)^2 + 12(\sqrt{3}x)$

2) $5(2u)^2 + 9 = 14(2u)$

$x = \frac{5\sqrt{3}}{21} ; x = \frac{9}{10}$

$\frac{9}{10}$

3) $7(w + 1)^2 + 10 = 10$

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$) - 10 = 0$

$w = -2 ; w = 2$

$= 2$

5) $(-7 + 3v)^2 + 10 = 10$

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$5 - 14(6y + 2)$

$v = \frac{29 \pm \sqrt{63}i}{12}$

$y = -\frac{17}{6} ; y = -\frac{1}{6}$