Bellwork Alg 2 Friday, November 22, 2019

Find ALL solutions to each Quadratic Equation. Round Real Solutions to the nearest hundredth. Simplify Complex Solutions.

1. $x^2 - 6x + 25 = 0$

2. $2x^2 + 11x = 7$

3. $4x^2 - 12x + 11 = 0$

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ANSWERS

Find ALL solutions to each Quadratic Equation. Round Real Solutions to the nearest hundredth. Simplify Complex Solutions.

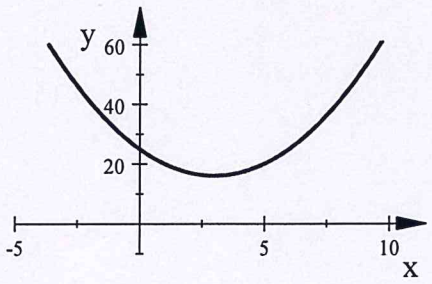
1. $x^2 - 6x + 25 = 0$

$b^2 - 4ac = -64$

$x = \frac{6 \pm \sqrt{-64}}{2}$

$= \frac{6 \pm 8i}{2}$

$x = 3 \pm 4i$



$\Rightarrow$ NO REAL SOL

2. $2x^2 + 11x = 7$

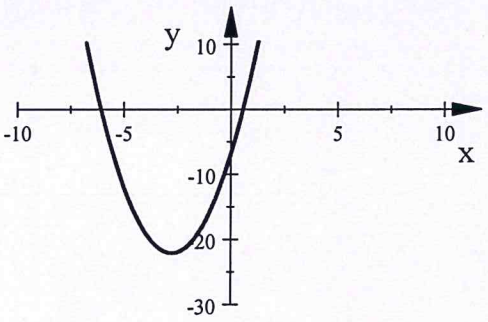
$-7 \quad -7$

$2x^2 + 11x - 7 = 0$

$b^2 - 4ac = 177$

$x = \frac{-11 \pm \sqrt{177}}{4}$

$x = -6.08, 0.58$



2 real sol's

3. $4x^2 - 12x + 11 = 0$

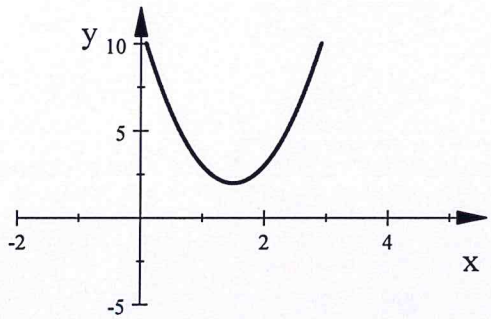
$b^2 - 4ac = -32$

$x = \frac{12 \pm \sqrt{-32}}{8}$

$= \frac{12 \pm \sqrt{-16 \cdot 2}}{8}$

$= \frac{12 \pm 4i\sqrt{2}}{8}$

$= \frac{3 \pm i\sqrt{2}}{2}$



NO Real Sol