Algebra 1 Bellwork Tuesday, April 28, 2015

Solve each equation. Round irrational answers to the nearest hundredth.

1. $\frac{5}{6}x^2 - 19 = 21$

2. $6 - 3m^2 + 1 = -41$

3. $2(x+3)^2 - 10 = 40$

Solve each equation. Simplify irrational answers.

4. $36x^2 + 11 = 36$

5. $-4 + 5Q^2 = 56$

6. $8 - 2c^2 = 76$

7. $(x-4)^2 + 3 = 34$

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Solve each equation. Round irrational answers to the nearest hundredth. Answers

1. $\frac{5}{6}x^2 - 19 = 21$ $\quad +19 \quad +19$

$\frac{6}{5} \cdot \frac{5}{6}x^2 = 40 \cdot \frac{6}{5}$

$\sqrt{x^2} = \sqrt{48}$

$x = \pm 6.93$

2. $6 - 3m^2 + 1 = -41$

$7 - 3m^2 = -41$

$-7 \quad -7$

$\frac{-3m^2}{-3} = \frac{-48}{-3}$

$\sqrt{m^2} = \sqrt{16}$

$m = \pm 4$

3. $2(x+3)^2 - 10 = 40$ $\quad +10 \quad +10$

$\frac{2(x+3)^2}{2} = \frac{50}{2}$

$\sqrt{(x+3)^2} = \sqrt{25}$

$x + 3 = \pm 5$

$x = +5 - 3 = 2$ or $-5 - 3 = -8$

$x = -8, 2$

Solve each equation. Simplify irrational answers.

4. $36x^2 + 11 = 36$ $\quad -11 \quad -11$

$\frac{36x^2}{36} = \frac{25}{36}$

$\sqrt{x^2} = \sqrt{\frac{25}{36}}$

$x = \pm \frac{5}{6}$

5. $-4 + 5Q^2 = 56$ $\quad +4 \quad +4$

$\frac{5Q^2}{5} = \frac{60}{5}$

$\sqrt{Q^2} = \sqrt{12}$

$Q = \pm \sqrt{12}$

$Q = \pm 2\sqrt{3}$

6. $8 - 2c^2 = 76$ $\quad -8 \quad -8$

$\frac{-2c^2}{-2} = \frac{68}{-2}$

$\sqrt{c^2} = \sqrt{-34}$

NO Real Sol

7. $(x-4)^2 + 3 = 34$ $\quad -3 \quad -3$

$\sqrt{(x-4)^2} = \sqrt{31}$

$x - 4 = \pm\sqrt{31}$ $\quad +4 \quad +4$

$x = 4 \pm \sqrt{31}$