Unit#3 HW #3. Solving Quadratics (Due Wednesday 3-11)

*Remember, you can divide an equation by a number to make it easier to solve. (Do not divide by a variable!)
SHOW ALL WORK!!!!!

Solve by factoring.

1) $4x^2 - 49 = 0$ by factoring

2) $k^2 = -4k - 4$ by factoring

3) $10n^2 - 35 = -65n$ by factoring

Solve by completing the square.

4) $x^2 + 6x + 10 = 0$

5) $6x^2 - 48 = -12x$

6) $x^2 - 2x = 47$

Use the quadratic formula to solve:

7) $r^2 + 7r + 2 = 0$

8) $x^2 = -3x + 40$

9) $8n^2 - 4n = 18$

Solve by finding zeros in calculator or state "no real solutions". Round solutions to 2 decimals places.

10) $-x^2 + 8x + 5 = 0$

11) $2x^2 + 7x = -4$

Solve by taking square roots.

12) $x^2 = 64$

13) $3x^2 + 12 = 0$

Solutions Bank

$\{-2\}$ $\dfrac{1\pm\sqrt{37}}{4}$ $\{-0.58, 8,58\}$

$\left\{\dfrac{1}{2}, -7\right\}$ $\{-2i, \ 2i\}$ $\{2, -4\}$

$\left\{-\dfrac{7}{2}, \dfrac{7}{2}\right\}$ $\left\{\dfrac{-7\pm\sqrt{41}}{2}\right\}$ $\{1 + 4\sqrt{3}. \ 1 - 4\sqrt{3}\}$

$\{5, -8\}$ $\{-3 + i, -3 - i\}$

$\{-8, 8\}$ $\{-2.78, -0.72\}$