Solving Quadratics by Using the Quadratic Formula - Practice

Simplify the following problems. Factor completely.

1. $6x^2 - 3x = 5$

2. $x^2 - 2x - 4 = 0$

3. $2x^2 - 12x + 15 = 0$

4. $6x^2 + 19x = 15$

5. $25x^2 - 3x + 49 = 0$

6. $x^2 - 6 = 7x$

7. $-3x - 28 = x^2$

8. $-x^2 + 3x - 28 = 0$

9. $5x^2 + 20x - 20 = 0$

10. $-x^2 + 7x = -10$

Solutions:

1. $x = \dfrac{3 \pm \sqrt{129}}{12}$

2. $x = 1 \pm \sqrt{5}$

3. $x = \dfrac{3 \pm \sqrt{6}}{2}$

4. $x = \dfrac{-19 \pm \sqrt{701}}{12}$

5. $x = \dfrac{3 \pm i\sqrt{4891}}{50}$

6. $x = \dfrac{7 \pm \sqrt{73}}{2}$

7. $x = \dfrac{3 \pm i\sqrt{103}}{2}$

10. $x = 2, 5$

8. $x = -4, 7$

9. $x = -2$