Solve by Factoring #1-6

1.   $7x^2 = 6 - 19x$

Factored Form: _____

Solution: _____

2.  $15x^2 = 65x - 20$

Factored Form: _____

Solution: _____

3.  $8x^2 = 18$

Factored Form: _____

Solution: _____

4.  $12x^2 = 30x$

Factored Form: _____

Solution: _____

5.  $12x^2 - 10 = -26x$

Factored Form: _____

Solution: _____

6.  $9x^2 - 9 = 72$

Factored Form: _____

Solution: _____

For #7 – 10, solve by completing the square

7. $6x^2 = 10x + 2x + 63 + 3$

8. $6x^2 - 12x - 41 = 1$

9. $x^2 - 13 = 12x - 1$

10. $2x^2 = 16x + 26$

Use quadratic equation and discriminant to solve:    Quadratic Equation:  $x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

11. Use quadratic formula to solve:  $4x^2 = 1x - 6$

Discriminant_____

Nature of solution: _____

Solution(s) _____

12. Use quadratic formula to solve:  $3x^2 + 1 - x = 5x + 9$

Discriminant_____

Nature of solution: _____

Solution(s) _____