- 1. Solve by completing the square:  $x^2 + 2x 3 = 0$
- 7. Solve by completing the square:  $x^2 + 4x 12 = 0$
- 2. Solve by completing the square:  $x^2 2x 3 = 0$
- 8. Solve by completing the square:  $x^2 4x 5 = 0$

3. Solve by completing the square:

$$x^2 - 2x - 24 = 0$$

9. Solve by completing the square:  $x^2 + 2x - 8 = 0$ 

4. Solve by completing the square:  $x^2 + 6x - 16 = 0$ 

10. Solve by completing the square: 
$$x^2 + 2x - 15 = 0$$

5. Solve by completing the square:

$$x^2 + 4x - 32 = 0$$

11. Solve by completing the square.  $-10x = 5x^2 - 1$ 

6. Solve by completing the square:

$$x^2 + 2x - 35 = 0$$

12. Solve by completing the square.

$$7x = 3x^2 - 1$$

13. Solve by completing the square.

$$8x = 3x^2 - 2$$

19. Solve by completing the square.

$$-9x = 4x^2 - 1$$

14. Solve by completing the square.

$$-9x = 4x^2 - 1$$

20. Solve by completing the square.

$$-10x = 5x^2 - 1$$

15. Solve by completing the square.

$$-6x = 3x^2 - 2$$

16. Solve by completing the square.

$$7x = 3x^2 - 1$$

17. Solve by completing the square.

$$-10x = 4x^2 - 2$$

18. Solve by completing the square.

$$-8x = 3x^2 - 2$$

$$[1]$$
  $-3, 1$ 

$$[2]$$
  $-1, 3$ 

$$[7]$$
  $-6, 2$ 

$$[8] -1, 5$$

$$[10]$$
 -5, 3

[11] 
$$\frac{-5 + \sqrt{30}}{5}$$
 and  $\frac{-5 - \sqrt{30}}{5}$ 

[12] 
$$\frac{7 + \sqrt{61}}{6}$$
 and  $\frac{7 - \sqrt{61}}{6}$ 

[13] 
$$\frac{4 + \sqrt{22}}{3}$$
 and  $\frac{4 - \sqrt{22}}{3}$ 

[14] 
$$\frac{-9 + \sqrt{97}}{8}$$
 and  $\frac{-9 - \sqrt{97}}{8}$ 

[15] 
$$\frac{-3 + \sqrt{15}}{3}$$
 and  $\frac{-3 - \sqrt{15}}{3}$ 

[16] 
$$\frac{7 + \sqrt{61}}{6}$$
 and  $\frac{7 - \sqrt{61}}{6}$ 

[17] 
$$\frac{-5 + \sqrt{33}}{4}$$
 and  $\frac{-5 - \sqrt{33}}{4}$ 

[18] 
$$\frac{-4 + \sqrt{22}}{3}$$
 and  $\frac{-4 - \sqrt{22}}{3}$ 

[19] 
$$\frac{-9 + \sqrt{97}}{8}$$
 and  $\frac{-9 - \sqrt{97}}{8}$ 

[20] 
$$\frac{-5 + \sqrt{30}}{5}$$
 and  $\frac{-5 - \sqrt{30}}{5}$