(C1-2.4a) Name:

Homework Questions 4 – Solving Equations by Completing the Square

Solve the following quadratic equations by completing the square

1. $x^2 + 4x - 7 = 0$ — $\pm\sqrt{11} - 2$

2. $x^2 + 12x + 9 = 0$ — $\pm 3\sqrt{3} - 6$

3. $x^2 - 6x + 3 = 0$ — $\pm\sqrt{6} + 3$

4. $x^2 - 8x - 2 = 0$ — $\pm 3\sqrt{2} + 4$

5. $x^2 - x - 3 = 0$ — $\pm\sqrt{\frac{13}{4}} + \frac{1}{2}$

6. $x^2 - 15x + 8 = 0$ — $\pm\sqrt{48\frac{1}{4}} + 7{\cdot}5$

7. $x^2 - 17x - 18 = 0$ — $\pm\sqrt{\frac{361}{4}} + 8{\cdot}5$

8. $2x^2 + 4x - 3 = 0$ — $\pm\sqrt{\frac{5}{2}} - 1$

9. $5x^2 - 8x + 2 = 0$ — $\pm\frac{\sqrt{6}}{5} + \frac{4}{5}$

10. $10x^2 + 3x - 2 = 0$ — $\pm\frac{\sqrt{89}}{20} - \frac{3}{20}$