Solutions

1. **Solution:** For $x = 3$: $2(3)^2 - 5(3) + 4 = 2 \cdot 9 - 15 + 4 = 18 - 15 + 4 = 7$.

2. **Solution:** $a = -2,\ b = 5$: $3a^2 - 2ab + b = 3(4) - 2(-2 \cdot 5) + 5 = 12 + 20 + 5 = 37$.

3. **Solution:** $x = -1,\ y = 2$: $(2x - 3y)^2 = (-2 - 6)^2 = (-8)^2 = 64$.

4. **Solution:** $t = \frac{1}{2}$: $8t^2 - 3t + \frac{1}{4} = 8 \cdot \frac{1}{4} - \frac{3}{2} + \frac{1}{4} = 2 - \frac{3}{2} + \frac{1}{4} = \frac{3}{4} = 0.75$.

5. **Solution:** Cost expression: $C = 2 + 0.35n$. For $n = 8$: $C = 2 + 0.35 \cdot 8 = 2 + 2.8 = 4.8$ dollars ($4.80).

6. **Solution:** Amount after m minutes: $A = 1.5 + 0.75m$. For $m = 12$: $A = 1.5 + 0.75 \cdot 12 = 1.5 + 9 = 10.5$ L.

7. **Solution:** $3x + 4x - 5 + 7 - 2x = (3 + 4 - 2)x + (-5 + 7) = 5x + 2$.

8. **Solution:** $5a^2 - 3a + 2a^2 + 4 - 7a - 1 = (5 + 2)a^2 + (-3 - 7)a + (4 - 1) = 7a^2 - 10a + 3$.

9. **Solution:** $0.5y + 1.2 - 1.5y + 3.8 + y = (0.5 - 1.5 + 1)y + (1.2 + 3.8) = 0 \cdot y + 5 = 5$.

10. **Solution:** $4x+3-2x+5 = (4-2)x+8 = 2x+8$. For $x = -2$: $2(-2)+8 = -4+8 = 4$.

11. **Solution:** $2p^2 + 3p - p^2 + 7 - 4p + 2p^2 = (2 - 1 + 2)p^2 + (3 - 4)p + 7 = 3p^2 - p + 7$. At $p = 3$: $3 \cdot 9 - 3 + 7 = 27 - 3 + 7 = 31$.

12. **Solution:** (a) $T = 3c+2c+0.5$ (b) $T = 5c+0.5$ (c) $c = 1.5 \Rightarrow T = 5(1.5)+0.5 = 7.5 + 0.5 = 8$ cups.