

## CW Unit 12 Review

Date \_\_\_\_\_ Period \_\_\_\_\_

**Find the discriminant of each quadratic equation then state the number of solutions.**

1)  $6v^2 + v + 5 = 0$

2)  $-v^2 - 8v - 7 = 0$

3)  $-9p^2 - 2p + 4 = -3$

4)  $v^2 + 15v + 9 = 9v$

**Solve each equation by completing the square.**

5)  $v^2 - 2v - 70 = 2$

6)  $4x^2 + 16x - 20 = 0$

**Solve each equation with the quadratic formula.**

7)  $10x^2 - 2x - 23 = 0$

8)  $6x^2 - 12x + 3 = -9$

**Solve each equation using any method.**

9)  $3n^2 + 9n - 12 = 0$

10)  $v^2 - 4v - 18 = 4$

11)  $r^2 - 60 = -11r$

12)  $11x^2 - 4x - 2 = 6$

## Answers to CW Unit 12 Review (ID: 1)

- 1)  $-119$ ; zero real solutions      2)  $36$ ; two real solutions      3)  $256$ ; two real solutions  
4)  $0$ ; one real solution      5)  $\{1 + \sqrt{73}, 1 - \sqrt{73}\}$       6)  $\{1, -5\}$   
7)  $\left\{\frac{1 + \sqrt{231}}{10}, \frac{1 - \sqrt{231}}{10}\right\}$       8) No solution.      9)  $\{1, -4\}$   
10)  $\{2 + \sqrt{26}, 2 - \sqrt{26}\}$       11)  $\{4, -15\}$       12)  $\left\{\frac{2 + 2\sqrt{23}}{11}, \frac{2 - 2\sqrt{23}}{11}\right\}$