

Name: \_\_\_\_\_ Show work needed to justify your answer. Date: \_\_\_\_\_

**HW # 61:** Algebra 1 - Standard 38 - Factor Quadratic Trinomials

5 points

Factor each polynomial, if possible. If the polynomial cannot be factored using integers, write *prime*.

1.  $x^2 + 17x + 42$

2.  $y^2 - 17y + 72$

3.  $a^2 + 8a - 48$

4.  $n^2 - 2n - 35$

5.  $44 + 15h + h^2$

6.  $40 - 22x + x^2$

7.  $-24 - 5x + x^2$

8.  $-42 - m + m^2$

9.  $t^2 + 8t + 12$

10.  $d^2 + 5d - 13$

11.  $y^2 - 6y + 17$

12.  $n^2 + 7n + 12$