Algebra 1CP practice problems for the unit 8 test Name: _____ Date: _____ Period:____

For #1-14, factor completely. If prime, then write "prime".

1) $m^2n^2 + m$

2) $12a^3b^3 - 3ab^2 + 39ab$

3) $x^2 + 6x - 7$

4) $rs - 4rt + 3s - 12t$

5) $12x^2 - 11x - 5$

6) $p^2 + 6p - 55$

7) $x^2 + 18x + 81$

8) $16b^2 - 49$

9) $24p^2q - 88pq^2 + 84p^2q^2$

10) $8x^2 - 31x + 21$

11) $24x^2 - 30x + 9$

12) $5x^3 + x^2 - 180x - 36$

13) $16x^2 - 15y^2$

14) $8x^2 - 72$

For #15-16, determine whether each trinomial is a perfect square trinomial. If so, factor it completely.

15) $9m^2 - 78m + 169$

16) $16r^2 + 25 + 40r$

For #17-18, find the value of *c* that makes each trinomial a perfect square.

17) $x^2 - 24x + c$

18) $x^2 - 11x + c$

For #19-20, which binomials are the factors for the given trinomials?

19) $5x^2 + x - 6$

20) $8x^2 + 48x + 72$