Kuta Software - Infinite Algebra 1

Name_____

Date_____ Period____

Factoring Trinomials (a = 1)

$ax^2+bx=c$

Factor each completely.

1) $b^2 + 8b + 7$

$\_*\_ = 7$

$\_+\_ = 8$

$(b+7)(b+1)$

2) $n^2 - 11n + 10$

$\_*\_ = 10$

$\_+\_ = -1$

$(n-10)(n-1)$

3) $m^2 + m - 90$

$\_*\_ = -90$

$\_*\_ = 1$

$(m+10)(m-9)$

4) $n^2 + 4n - 12$

$\_*\_ = -12$

$\_+\_ = 4$

$(n+6)(n-2)$

5) $n^2 - 10n + 9$

$\_*\_ = 9$

$\_+\_ = -10$

$(n-9)(n-1)$

6) $b^2 + 16b + 64$

$\_*\_ = 64$

$\_+\_ = 16$

$(b+8)(b+8)$ or $(b+8)^2$ → which we can rewrite as $(b+8)^2$

7) $m^2 + 2m - 24$

$\_*\_ = -24$

$\_+\_ = 2$

$(m+6)(m-4)$

8) $x^2 - 4x + 24$

$\_*\_ = 24$

$\_+\_ = -4$

prime

9) $k^2 - 13k + 40$

$\_*\_ = 40$

$\_+\_ = -13$

$(k-8)(k-5)$

10) $a^2 + 11a + 18$

$\_*\_ = 18$

$\_+\_ = 11$

$(a+9)(a+2)$

11) $n^2 - n - 56$

$\_*\_ = -56$

$\_+\_ = -1$

$(n-8)(n+7)$

12) $n^2 - 5n + 6$

$\_*\_ = 6$

$\_+\_ = -5$

$(n-2)(n-3)$

13) $b^2 - 6b + 8$

$(b-4)(b-2)$

14) $n^2 + 6n + 8$

$(n+4)(n+2)$

★GCF

15) $2n^2 + 6n - 108$

$2(n^2+3n-54)$

$2(n+9)(n-6)$

★16) ~~$5n^2 + 10n + 20$~~

$5(n^2+2n+4)$

$-*- = 4$

$-+- = 2$

★17) $2k^2 + 22k + 60$

$2(k^2+11k+30)$

$2(k+6)(k+5)$

18) $a^2 - a - 90$

$(a-10)(a+9)$

19) $p^2 + 11p + 10$

$(p+10)(p+1)$

★20) $5v^2 - 30v + 40$

$5(v^2-6v+8)$

$5(v-4)(v-2)$

★21) $2p^2 + 2p - 4$

$2(p^2+p-2)$

$2(p+2)(p-1)$

★22) $4v^2 - 4v - 8$

$4(v^2-1v-2)$

$4(v-2)(v+1)$

23) $x^2 - 15x + 50$

$(x-10)(x-5)$

24) $v^2 - 7v + 10$

$(v-5)(v-2)$

25) $p^2 + 3p - 18$

$(p+6)(p-3)$

26) $6v^2 + 66v + 60$

★ $6(v^2+11v+10)$

$6(v+10)(v+1)$