Math 11U

Name_____

Factoring Quiz #3 /20

Date_____

Factor each completely. THERE IS ONE EXPAND QUESTION ON THE BACK

1) $x^2 - 16x + 39$ (×) +39 (+) -16 -13, -3

$(x-13)(x-3)$

2) $x^2 - 6x - 55$ (×) -55 (+) -6 5, -11

$(x+5)(x-11)$

3) $6a^2 - 23a + 7$ (×) +42 (+) -23 -21, -2

$= 6a^2 - 2a - 21a + 7$

$= 2a(3a-1) - 7(3a-1)$

$= (3a-1)(2a-7)$

4) $7p^2 - 49p$

$= 7p(p-7)$

5) $5x^2 + 9x - 18$ (×) -90 (+) +9 15, -6

$= 5x^2 + 15x - 6x - 18$

$= 5x(x+3) - 6(x+3)$

$= (x+3)(5x-6)$

6) $12y^2 - 60y + 75$ (×) 100 (+) -20 -10, -10

$= 3(4y^2 - 20y + 25)$

$= 3(2y-5)^2$

7) $24n^2 + 44n + 16$ (×) 24 (+) 11 8, 3

$= 4(6n^2 + 11n + 4)$

$= 4(6n^2 + 3n + 8n + 4)$

$= 4(3n+4)(2n+1)$

8) $3x^2 + 25x + 8$ (×) 24 (+) 25 24, 1

$= 3x^2 + 24x + 1x + 8$

$= (3x+1)(x+8)$

Expand:

9) $(7n-4)^2$ $(7n-4)$

$= 49n^2 - 28n - 28n + 16$

$= 49n^2 - 56n + 16$

$(7n-4)^2$

$49n^2 - 56n + 16$