MTH1W - Unit 5: Algebra 2 Name_____

Homework #5.2 Multiplying Polynomials

Due Date_____

Expand the binomials.

1) $(x + 3)(x + 9)$

$x^2 + 12x + 27$

2) $(x + 6)(x - 2)$

$x^2 + 4x - 12$

3) $(x - 3)(x - 10)$

$x^2 - 13x + 30$

4) $(x - 7)(x + 7)$

$x^2 - 49$

5) $(n - 4)(2n + 6)$

$2n^2 - 2n - 24$

6) $(3m + 8)(5m + 6)$

$15m^2 + 58m + 48$

7) $(4x + 4)(3x - 6)$

$12x^2 - 12x - 24$

8) $(4x + 5)(2x + 2)$

$8x^2 + 18x + 10$

9) $(2n + 3)^2$

$4n^2 + 12n + 9$

10) $(6p - 1)(3p + 5)$

$18p^2 + 27p - 5$

11) $(2n-3)(3n+8)$

$6n^2 + 7n - 24$

12) $(4k-3)(k+5)$

$4k^2 + 17k - 15$

13) $(6m-7)(6m+1)$

$36m^2 - 36m - 7$

14) $(4x+3)^2$

$16x^2 + 24x + 9$

15) $(12x+10)(3x-6)$

$36x^2 - 42x - 60$

16) $(5x-1)(5x-2)$

$25x^2 - 15x + 2$

17) $(7v-5)(7v+5)$

$49v^2 - 25$

18) $(8a+1)(a-7)$

$8a^2 - 55a - 7$

Expand the binomials, then distribute the number in front.

19) $-3(2k+1)(k+3)$

$-6k^2 - 21k - 9$

20) $5(3x-2)(3x+2)$

$45x^2 - 20$

21) $10(2a+3)(3a+1)$

$60a^2 + 110a + 30$

22) $\frac{1}{3}(9r-3)(8r-9)$

$24r^2 - 35r + 9$