

Homework #8.2 Multiplying Polynomials

Due Date _____ 5K _____

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

$$24r^2 - 35r + 9$$