

Multiplying Day 1

Date _____ Period _____

Find each product. Write all answers in standard form.

1) $2(-4a - 2)$

$$-8a - 4$$

2) $-7(-3a - 6)$

$$21a + 42$$

3) $7(6n + 4)$

$$42n + 28$$

4) $-7n^2(8n - 3)$

$$-56n^3 + 21n^2$$

5) $-6x(-2x - 2)$

$$12x^2 + 12x$$

6) $4a(-5a + 1)$

$$-20a^2 + 4a$$

7) $-8m(-6m^2 + m + 6)$

$$48m^3 - 8m^2 - 48m$$

8) $-4p^2(3p^2 - 5p + 5)$

$$-12p^4 + 20p^3 - 20p^2$$

9) $5x^3(-x^2 + 5x + 3)$

$$-5x^5 + 25x^4 + 15x^3$$

10) $4p(-7p^2 - 5p - 2)$

$$-28p^3 - 20p^2 - 8p$$

11) $6v(7v^2 - 8v + 3)$

$$42v^3 - 48v^2 + 18v$$

12) $8(2a^2 + 5a - 3)$

$$16a^2 + 40a - 24$$

13) $-5x(-2x^2 + 7x + 1)$

$$10x^3 - 35x^2 - 5x$$

14) $-2b(b^2 - 3b - 1)$

$$-2b^3 + 6b^2 + 2b$$

15) $7r(-7r^2 + 8r + 5)$

$$-49r^3 + 56r^2 + 35r$$

16) $-4x(-3x^2 + 7x - 6)$

$$12x^3 - 28x^2 + 24x$$

Find each product by using distribution (FOIL). Write all answers in standard form.

17) $(4b + 3)(2b + 5)$

$$8b^2 + 26b + 15$$

18) $(2x - 1)(4x + 7)$

$$8x^2 + 10x - 7$$

19) $(5p-1)(7p+1)$

$$35p^2 - 2p - 1$$

20) $(6x-7)(3x+7)$

$$18x^2 + 21x - 49$$

21) $(4x-5)(3x+4)$

$$12x^2 + x - 20$$

22) $(3v+4)(6v-2)$

$$18v^2 + 18v - 8$$

23) $(4x-5)(6x-6)$

$$24x^2 - 54x + 30$$

24) $(4p-5)(4p+7)$

$$16p^2 + 8p - 35$$

Simplify each expression.

9) $(4x^4 - 4x^2 + 2x) - (6 + 2x^2 - 2x)$

$$4x^4 - 6x^2 + 4x - 6$$

10) $(x+1)(4x-7)$

$$4x^2 - 3x - 7$$

11) $(3r^2 - 3r + 5)(5r - 1)$

$$15r^3 - 18r^2 + 28r - 5$$

12) $(5x^2 - 5x^3) + (5x^2 + x^3 - 2x)$

$$-4x^3 + 10x^2 - 2x$$

13) $(5b^2 + 6b + 2)(6b^2 + 4b - 6)$

$$30b^4 + 56b^3 + 6b^2 - 28b - 12$$

14) $(8p - p^3 + 7 + 2p^4) - (2 + 4p^3 + p)$

$$2p^4 - 5p^3 + 7p + 5$$

15) $(2 - 4n - 4n^2) + (7 - 8n)$

$$-4n^2 - 12n + 9$$

16) $(4x-6)(5x^2+5x+1)$

$$20x^3 - 10x^2 - 26x - 6$$