

**LESSON**  
**18-2****Multiplying Polynomial Expressions****Reteach**

Use the Distributive Property to multiply binomial and polynomial expressions.

**Examples**

**Multiply  $(x + 3)(x - 7)$ .**

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



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

*Distribute.*

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

*Distribute again.*

$$x^2 - \underline{7x} + \underline{3x} - 21$$

*Multiply.*

$$x^2 - 4x - 21$$

*Combine like terms.*

**Multiply  $(x + 5)(x^2 + 3x + 4)$ .**

$$(x + 5)(x^2 + 3x + 4)$$

$$x(x^2 + 3x + 4) + 5(x^2 + 3x + 4)$$

*Distribute.*

$$(x)x^2 + (x)3x + (x)4 + (5)x^2 + (5)3x + (5)4$$

*Distribute again.*

$$x^3 + \underline{3x^2} + \underline{4x} + \underline{5x^2} + \underline{15x} + 20$$

*Multiply.*

$$x^3 + 8x^2 + 19x + 20$$

*Combine like terms.*

**Fill in the blanks below. Then finish multiplying.**

1.  $(x + 4)(x - 5)$

2.  $(x - 2)(x + 8)$

3.  $(x - 3)(x - 6)$

\_\_\_  $(x - 5)$  + \_\_\_  $(x - 5)$

\_\_\_  $(x + 8)$  - \_\_\_  $(x + 8)$

\_\_\_  $(x - 6)$  - \_\_\_  $(x - 6)$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Multiply.**

4.  $(x - 2)(x - 3)$

5.  $(x - 7)(x + 7)$

6.  $(x + 2)(x + 1)$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Fill in the blanks below. Then finish multiplying.**

7.  $(x + 3)(2x^2 + 4x + 8)$

8.  $(x + 2)(6x^2 + 4x + 5)$

\_\_\_  $(2x^2 + 4x + 8)$  + \_\_\_  $(2x^2 + 4x + 8)$

\_\_\_  $(6x^2 + 4x + 5)$  + \_\_\_  $(6x^2 + 4x + 5)$

\_\_\_\_\_

\_\_\_\_\_

2. No.
3.  $a = 43.41$ ,  $b = 1.26$ ;  $r = 0.95$
4.  $y = 43.41(1.26)^x$

5. Yes, 0.95 is close to a 1.
6. Increasing; the graph is rising and the value of  $b$  is  $1 + 0.26$ .
7. 276

### LESSON 16-4 Reteach

1.

	$m$	0	1	2	3	4	5	6
<b>Choice A</b>	$p$	50	$50 + 10(1) = 60$	$50 + 10(2) = 70$	80	90	100	110
<b>Choice B</b>	$p$	50	$50 \times 1.10^1 = 55$	$50 \times 1.10^2 = 60.5$	66.55	73.21	80.53	88.58

2. Choice A is better because it pays more.
3.  $p = 50 + 10(m)$ ;  $p = 50(1.10)^m$
4. A: \$160; B: \$142.66
5.  $m = 14$ ;  $p = 190$

### LESSON 17-1 Reteach

1. monomial; degree 8
2. trinomial; degree 5
3. binomial; degree 6
4.  $3y^2 + 10y$
5.  $4m^4 + 3m$
6.  $12x^5 + 18x^4$

### LESSON 17-2 Reteach

1.  $8x^2 + 9x$
2.  $m^2 - 2m + 7$
3.  $10x^3 + x^2 + 3x + 9$
4.  $3y^5 + 8y^4 - 8y^3$

### LESSON 17-3 Reteach

1.  $9x^3 - 8x$
2.  $8t^4 + 1$
3.  $-2x^3 + 4x + 4$
4.  $t^3 - t^2 - 4t - 6$
5.  $4c^5 - c^3 + 8c^2 - 7$

### LESSON 18-1 Reteach

1.  $-10x^3y^4$
2.  $-8x^3y^2z^2$
3.  $3x^3y^3$
4. 4; 4;  $4x - 20$

5.  $3x$ ;  $3x$ ;  $3x^2 + 24x$
6.  $2x$ ;  $2x$ ;  $2x$ ;  $2x^3 - 12x^2 + 6x$
7.  $5x + 45$
8.  $-4x^3 - 32x$
9.  $6x^4 + 15x^3 + 12x^2$
10.  $3x^2 - 21$
11.  $10a^4b^2$
12.  $-5y^3 + 35y^2 - 10y$

### LESSON 18-2 Reteach

1.  $x$ ; 4;  $x^2 - x - 20$
2.  $x$ ; 2;  $x^2 + 6x - 16$
3.  $x$ ; 3;  $x^2 - 9x + 18$
4.  $x^2 - 5x + 6$
5.  $x^2 - 49$
6.  $x^2 + 3x + 2$
7.  $x$ , 3;  $2x^3 + 10x^2 + 20x + 24$
8.  $x$ , 2;  $6x^3 + 16x^2 + 13x + 10$

### LESSON 18-3 Reteach

1. difference of squares
2. perfect-square trinomial
3. perfect-square trinomial
4.  $x^2 - 16x + 64$
5.  $x^2 + 4x + 4$
6.  $49x^2 - 70x + 25$
7.  $x^2 - 64$
8.  $100 - x^2$
9.  $25x^2 - 4y^2$