Operations with Polynomials

Find each product.

1) $4(5x + 3) =$ _____
2) $8(2x + 6) =$ _____
3) $2(5x - 2) =$ _____
4) $-4(7x - 3) =$ _____
5) $3x^2(9x + 1) =$ _____
6) $4x^6(7x - 9) =$ _____
7) $3x^4(-7x + 3) =$ _____
8) $-8x^4\ (5x - 8) =$ _____
9) $7\ (x^2 + 5x - 3) =$ _____
10) $9(5x^2 - 7x + 5) =$ _____
11) $3(3x^2 + 3x + 2) =$ _____
12) $5x(3x^2 + 5x + 8) =$ _____
13) $(5x + 7)(3x - 3) =$ _____
14) $(9x + 3)(3x - 5) =$ _____
15) $(6x + 3)(4x - 2) =$ _____
16) $(7x - 2)(3x + 5) =$ _____

Calculate each problem.

17) The measures of two sides of a triangle are $(2x + 5y)$ and $(6x - 3y)$. If the perimeter of the triangle is $(13x + 4y)$, what is the measure of the third side? _____

18) The height of a triangle is $(8x + 5)$ and its base is $(4x - 3)$. What is the area of the triangle? _____

19) One side of a square is $(6x + 2)$. What is the area of the square? _____

20) The length of a rectangle is $(5x - 8y)$ and its width is $(15x + 8y)$. What is the perimeter of the rectangle? _____

21) The side of a cube measures $(x + 2)$. What is the volume of the cube? _____

22) If the perimeter of a rectangle is $(28x + 6y)$ and its width is $(5x + 2y)$, what is the length of the rectangle? _____

Answers of Worksheets

Operations with Polynomials

1) $20x + 12$
2) $16x + 48$
3) $10x - 4$
4) $-28x + 12$
5) $27x^3 + 3x^2$
6) $28x^7 - 36x^6$
7) $-21x^5 + 9x^4$
8) $-40x^5 + 64x^4$
9) $7x^2 + 35x - 21$
10) $45x^2 - 63x + 45$
11) $9x^2 + 9x + 6$
12) $15x^3 + 25x^2 + 40x$
13) $15x^2 + 6x - 21$
14) $27x^2 - 36x - 15$
15) $24x^2 - 6$
16) $21x^2 + 29x - 10$
17) $(5x + 2y)$
18) $16x^2 - 2x - \frac{15}{2}$
19) $36x^2 + 24x + 4$
20) $40x$
21) $x^3 + 6x^2 + 12x + 8$
22) $(9x + y)$