Name: _____

1) The expression $(y - 2)^2$ is equivalent to

A) $y^2 - 4$
B) $y^2 - 4y - 4$
C) $y^2 + 4y + 4$
D) $y^2 - 4y + 4$

2) Simplify: $(5x^2 - 2x + 5) - (2x^2 - 4x - 3)$

3) Simplify: $6xy + 3xy - (-2xy)$

4) A side of a cube measures $5x + 4$. Express the area of one face of the cube as a trinomial.

A) $25x^2 + 16$
B) $25x^2 + 40x + 16$
C) $25x^2 + 20x + 16$
D) $10x^2 + 18x + 8$

5) If $(x - 3)$ and $(x + 7)$ are the factors of the trinomial $x^2 + ax - 21$, what is the value of a?

A) -4
B) 4
C) 7
D) -3

6) Simplify: $8 + [(7 + 2x) + 4]$

7) What factor do the following trinomials have in common?

$x^2 + 10x + 24$
$x^2 - 3x - 28$

A) $x - 4$
B) $x + 6$
C) $x + 2$
D) $x + 4$

8) An equation whose roots are -3 and 2 is

A) $x^2 - x + 6 = 0$
B) $x^2 + x - 6 = 0$
C) $x^2 + x + 6 = 0$
D) $x^2 + 5x - 6 = 0$

9) Find the solution set: $4x^2 - 4x = 24$

10) Simplify: $(2x - y)(x - 2y)$

11) The trinomial $4x^2 - 12x + 9$ represents the area of a square. Express the measure of a side in terms of x.

A) $2x - 3$
B) $2x + 3$
C) $2(x + 3)$
D) $4x + 3$

12) If $(2x + 7)$ and $(x + 2)$ are the factors of $2x^2 + 11x + k$, then the value of k is

A) 3
B) 14
C) 11
D) 9

13) What are the factors of $3x^2 + 7x - 20$?

A) $(3x + 4)(x - 5)$
B) $(3x - 4)(x + 5)$
C) $(3x + 5)(x - 4)$
D) $(3x - 5)(x + 4)$

14) Simplify: $3x^3y - 5x^2y^2 + 5x^3y$

15) Simplify: $(x^2 - 3x + 7) + (x - 2)$

16) Simplify: $(5y^2 + 3y - 8) + (2y^2 - 7y + 9)$

17) Simplify: $(4x^2 - 3) - (-2x^2)$

18) Simplify: $(-7y + 3) + (2y - 4)$

19) If $(2x - 3)$ and $(x + 5)$ are multiplied to form the binomial $ax^2 + bx + c$, what is the value of b?

A) 4
B) 7
C) 2
D) -15

20) Simplify: $(4x - 3)(x - 2)$