Grade 8 - Final Exam Practice Test
Algebra 1 -Trimester 3

NAME _____ CLASS _____ Date: _____ /20

Prepared by Murad Jawaada

1. Choose the correct answer. The question numbers on this paper are not in order or sequence.

1. Solve for x: x + 9 = 17
- A. 26
- B. 9
- C. 8
- D. -8

2. Solve for y: y - 5 = 11
- A. 16
- B. 6
- C. -16
- D. 11

3. Solve for z: 6z = 54
- A. 8
- B. 10
- C. 9
- D. 48

7. What is the solution to 3(x - 2) = x + 8?
- A. x = 7
- B. x = -7
- C. x = 5
- D. x = 4

4. Solve for a: $-\frac{a}{5} = 7$
- A. 12
- B. -35
- C. 2
- D. 30

5. Solve for m: m + 15 = 0
- A. 15
- B. 0
- C. -15
- D. -30

6. Solve for x: 4x + 3 = 3x + 11
- A. 14
- B. 8
- C. -8
- D. 7

10. If 8x + 1 = 5x + 16, what is the value of x?
- A. 3
- B. 5
- C. 7
- D. 9

8. Find x if 4x - 6 = 2(x + 3).
- A. x = 6
- B. x = 3
- C. x = -6
- D. x = -3

9. Solve: 5(x + 1) - 4 = 3x + 8
- A. x = 3
- B. x = 1
- C. x = 2
- D. x = 4

17. Multiply (3x - 2)(x + 5).
- A. $3x^2 + 13x - 10$
- B. $3x^2 + 15x - 10$
- C. $3x^2 + 13x + 10$
- D. $3x^2 - 13x - 10$

11. What is the sum of $(4x^2 + 3x + 2) + (2x^2 - x + 5)$?
- A. $6x^2 + 2x + 7$
- B. $6x^2 + 4x + 7$
- C. $2x^2 + 2x + 7$
- D. $6x^2 + 2x - 3$

18. Find the product: (x - 4)(x - 3).
- A. $x^2 - 7x + 12$
- B. $x^2 - x + 12$
- C. $x^2 - 12x + 7$
- D. $x^2 - 7x - 12$

22. Expand and simplify: (x + 9)(x - 9).
- A. $x^2 - 81$
- B. $x^2 + 81$
- C. $x^2 - 18x + 81$
- D. $x^2 + 18x - 81$

14. Find the result when $(3x^2 - 5x + 4)$ is subtracted from $(7x^2 + x - 2)$.
- A. $4x^2 + 6x - 6$
- B. $10x^2 - 4x + 2$
- C. $4x^2 - 4x - 6$
- D. $10x^2 + 6x - 6$

12. Subtract $(x^2 - 4x + 3)$ from $(5x^2 + 2x - 1)$.
- A. $4x^2 + 6x - 4$
- B. $6x^2 - 2x + 2$
- C. $4x^2 - 2x + 4$
- D. $5x^2 + 6x - 4$

21. Which of the following is the product of (3x - 2)(3x + 2)?
- A. $9x^2 - 4$
- B. $9x^2 + 4$
- C. $6x^2 - 4$
- D. $9x^2 - 12x + 4$

23. If $(x + 5)^2 = x^2 + bx + 25$, what is b?
- A. 25
- B. 10
- C. 5
- D. 20

25. Which expression is equivalent to 6(a - 4)?
- A. 6a - 24
- B. 6a - 4
- C. a - 24
- D. 6a + 24

13. What is $(2x^2 + x - 3) + (5x^2 - 2x + 7)$?
- A. $7x^2 - x + 4$
- B. $7x^2 + 3x + 4$
- C. $3x^2 - x + 10$
- D. $7x^2 - x - 4$

24. Apply the distributive property to 5(x + 7).
- A. 5x + 35
- B. 5x + 7
- C. x + 35
- D. 12x

27. Solve by factoring: $x^2 - 9x + 20 = 0$
- A. x = 4 or x = 5
- B. x = 2 or x = 10
- C. x = -4 or x = -5
- D. x = 1 or x = 20

20. What is the expanded form of $(x + 6)^2$?
- A. $x^2 + 12x + 36$
- B. $x^2 + 6x + 36$
- C. $x^2 + 36$
- D. $x^2 + 6x + 6$

15. What is the sum of $(8x^2 - 3x) + (-2x^2 + 7x + 1)$?
- A. $6x^2 + 4x + 1$
- B. $10x^2 + 4x + 1$
- C. $6x^2 - 10x + 1$
- D. $6x^2 + 10x + 1$

26. Factor and solve: $x^2 + 7x + 12 = 0$
- A. x = -3 or x = -4
- B. x = 3 or x = 4
- C. x = -12 or x = 1
- D. x = 12 or x = -1

30. Factor and solve: $x^2 + x - 12 = 0$
- A. x = 3 or x = -4
- B. x = -3 or x = 4
- C. x = 12 or x = -1
- D. x = -12 or x = 1

29. Solve: $x^2 - 6x - 16 = 0$
- A. x = 8 or x = -2
- B. x = -8 or x = 2
- C. x = 4 or x = -4
- D. x = 16 or x = -1

16. What is the product of (x + 4)(x + 3)?
- A. $x^2 + 7x + 12$
- B. $x^2 + 12x + 7$
- C. $x^2 + 7x + 7$
- D. $x^2 + 12$

31. A bakery sells boxes of cookies. Each box contains 6 cookies, and each cookie costs 2 dollars. Write an expression for the total cost of 4 boxes, and find the total cost.

A. 12
B. 24
C. 36
D. 48

28. Which of the following is the correct factorization of $x^2 + 9x + 20$?
- A. (x + 4)(x + 5)
- B. (x + 2)(x + 10)
- C. (x + 1)(x + 20)
- D. (x - 4)(x - 5)

19. What is the result of multiplying $(2x)(x^2 - 3x + 4)$?
- A. $2x^3 - 6x^2 + 8x$
- B. $2x^2 - 6x + 8$
- C. $2x^3 - 3x^2 + 4x$
- D. $2x^3 - 6x^2 + 4x$

A rectangular playground has a length that is 4 m greater than its width. The area of the playground is 96 m². Answer the following questions:

A. Define a variable. L = , w =

B. Create a quadratic equation. x^2 +

C. Solve the equation by factoring. x = or x =

D. Find the dimensions of the playground. L = , W =

Prepared by Murad Jawaada