NC 5th Grade SSA-Style Math Assessment

Name: _____ **Date:** _____

Instructions: Answer the following questions. Show all your work where required.

Part 1: Multiple Choice Questions

1. What is 4.5 × 3.2? a) 13.4 b) 14.4 c) 15.2 d) 16.0

2. Solve: 72 ÷ (6 × 2) a) 3 b) 6 c) 12 d) 24

3. Which fraction is equivalent to 3/4? a) 6/8 b) 9/12 c) 12/16 d) All of the above

4. What is the prime factorization of 84? a) 2 × 2 × 3 × 7 b) 2 × 3 × 14 c) 2 × 2 × 21 d) 2 × 3 × 7

5. Convert 3/8 to a decimal. a) 0.25 b) 0.375 c) 0.42 d) 0.5

Part 2: Short Answer Questions

6. Solve: $5(8 + 2) - 3^2 =$ _____

7. Find the greatest common factor (GCF) of 36 and 48.

8. Convert 4.75 into a fraction in simplest form.

9. A rectangle has a length of 8 cm and a width of 5 cm. Find its area and perimeter.

10. Solve for x: $3x + 7 = 25$

Part 3: Word Problems

11. Jamie runs 2.5 miles each day. How many miles does she run in 6 days?

12. A box contains 120 marbles in a 3:2 ratio of red to blue. How many blue marbles are there?

13. A recipe calls for 2 1/4 cups of flour. If you double the recipe, how much flour is needed?

14. A store offers a 20% discount on a $50 item. What is the final price after the discount?

15. If a train travels at 60 miles per hour for 2.5 hours, how far does it travel?

Part 4: Geometry and Measurement

16. Find the volume of a rectangular prism with length 5 cm, width 3 cm, and height 4 cm.

17. A triangle has angles measuring 40° and 75°. Find the third angle.

18. Convert 150 cm into meters.

19. What is the sum of the interior angles of a pentagon?

20. If a circle has a radius of 7 cm, find its circumference (use π ≈ 3.14).

Part 5: Ratios, Rates, and Percents

21. The ratio of boys to girls in a class is 5:3. If there are 40 students total, how many are boys?

22. A car travels 180 miles in 3 hours. What is its speed in miles per hour?

23. What is 35% of 80?

24. A school has 300 students, and 120 are in the choir. What percentage of students are in the choir?

25. Convert 0.875 into a fraction in simplest form.

Part 6: Expressions and Equations

26. Evaluate: $4^2 + (6 - 2) \times 3$

27. If $y = 2x + 5$, find y when $x = 4$.

28. Write an algebraic expression for: "Twice a number minus 7."

29. Solve: $2(x - 3) = 10$

30. The perimeter of a square is 36 cm. Find the length of one side.

Part 7: Data and Statistics

31. The temperatures for five days were: 72°F, 75°F, 80°F, 68°F, 74°F. Find the mean temperature.

32. The mode of a set of numbers is 12. What does this mean?

33. A survey showed 3 out of 5 students like soccer. What fraction and percentage represent this?

34. A set of test scores includes 85, 90, 75, 85, and 95. Find the median score.

35. What type of graph is best for showing changes over time?

Part 8: Advanced Topics

36. The sum of two consecutive even numbers is 38. What are the numbers?

37. Find the probability of rolling an even number on a six-sided die.

38. A store sells apples for $0.60 each. How much will 8 apples cost with a 10% discount?

39. If 8 workers can complete a task in 6 hours, how long will it take 4 workers?

40. The area of a triangle is 24 cm^2, and its base is 8 cm. Find its height.