PEP Grade 6 Math — Unit 8: Math in Action: Numbers and Shapes · Unit Test (Basic)

PEP · Grade 6 · Term 1 · Mathematics · Unit Test · Basic

AI-generated practice paper · original study aid, not an official examination paper · 40 questions · 100 points

Name: _____ Date: _____ Score: _____

Answer all questions. This paper is worth 100 points. Show your working where appropriate.

I. Multiple Choice

1. What is the sum of the first 5 odd numbers? (1 + 3 + 5 + 7 + 9)
   A. 20 B. 25
   C. 30 D. 35

2. If a pattern of squares increases by 2 each time starting from 1 square, how many squares are there in the 4th step?
   A. 6 B. 7
   C. 8 D. 9

3. Which shape can be used to represent the sum 1 + 2 + 3 + 4 using dots arranged in rows?
   A. Rectangle B. Triangle
   C. Square D. Circle

4. What is the total number of dots in a 5-row triangle made with consecutive row counts starting from 1?
   A. 10 B. 12
   C. 15 D. 20

5. In a pattern where each stage adds 4 more dots than the previous stage did (starting with 1 dot in Stage 1), how many total dots are there at Stage 3?
   A. 9 B. 12
   C. 13 D. 16

6. Which of the following patterns shows the number 1 + 3 + 5 + 7 as a square shape?
   A. 2×2 square B. 3×3 square
   C. 4×4 square D. 5×5 square

7. How many small squares are in the 6th figure of a pattern where each figure is a square made of smaller squares, with side length equal to the figure number?
   A. 12 B. 24
   C. 36 D. 48

8. Which expression represents the sum of the first 6 odd numbers?
   A. 6 × 6 B. 6 × 7
   C. 6 × 5 D. 6 × 4

9. If a sequence of dots forms a triangle with 7 rows, how many dots are in the entire triangle?
   A. 21 B. 28