1. What sequence is obtained when odd numbers are added upwards?
   A. Fibonacci sequence
   B. Square numbers
   C. Triangular numbers
   D. Cube numbers (B)

Explanation : Adding odd numbers upwards gives a sequence of square numbers. For example, 1 + 3 = 4, 1 + 3 + 5 = 9.

2. Which sequence is obtained by adding triangular numbers upwards?
   A. Square numbers
   B. Fibonacci numbers
   C. Hexagonal numbers
   D. Cube numbers (C)

Explanation: Adding triangular numbers results in the sequence of hexagonal numbers.

3. The sequence 1, 3, 6, 10, 15 is an example of:
   A. Square numbers
   B. Cube numbers
   C. Triangular numbers
   D. Fibonacci numbers (C)

Explanation: This is the sequence of triangular numbers, where each term is the sum of the first n natural numbers.

4. The sequence 1, 2, 4, 8, 16 represents which of the following?
   A. Powers of 3
   B. Powers of 2
   C. Cube numbers
   D. Square numbers (B)

Explanation: The sequence 1, 2, 4, 8, 16 represents powers of 2, where each number is the previous number multiplied by 2.

5. How can the odd numbers 1, 3, 5, 7, 9 be arranged in a square dot grid?
   A. In rows and columns of squares
   B. In a circular formation
   C. In a triangular formation
   D. In a rectangular grid (A)

Explanation : The odd numbers can be arranged in rows and columns of squares, forming a grid.

6. Which of these shapes are part of the regular polygon sequence?
   A. Circle, Square, Triangle
   B. Triangle, Square, Pentagon
   C. Rectangle, Square, Hexagon
   D. Triangle, Rectangle, Cube (B)

Explanation : The sequence of regular polygons begins with a triangle, then continues with a square, pentagon, hexagon, etc.

7. The sequence 1, 8, 27, 64, 125 is an example of:
   A. Triangular numbers
   B. Square numbers
   C. Fibonacci numbers
   D. Cube numbers (D)

Explanation : This sequence represents cube numbers, where each number is the cube of an integer (e.g., 1^3, 2^3, 3^3).

8. What is the term used for a polygon with 9 sides?
   A. Heptagon B. Octagon
   C. Nonagon D. Decagon (C)

Explanation : A polygon with 9 sides is called a nonagon.

9. What happens when we start adding the powers of 2?
   A. We get Fibonacci numbers
   B. We get cube numbers
   C. We get square numbers
   D. We get a doubling sequence (D)

Explanation : Adding powers of 2 creates a doubling sequence, such as 1, 3, 7, 15, 31, 63, etc.

10. Why are shapes like triangle, square, pentagon, and hexagon called regular polygons?
    A. Because they have unequal sides
    B. Because they have equal sides and angles
    C. Because they have random sides
    D. Because they are formed using only squares (B)

Explanation : Regular polygons have equal sides and equal angles, which is why they are named this way.