1. Which of the following best describes mathematics according to the chapter?
   A. Study of numbers only
   B. Search for patterns and their explanations
   C. Memorising formulas
   D. Solving puzzles only (B)

*Explanation :* The chapter clearly states that mathematics is about finding patterns and understanding why they exist, not just calculations.

2. Which sequence represents odd numbers?
   A. 2, 4, 6, 8, ...
   B. 1, 2, 3, 4, ...
   C. 1, 3, 5, 7, ...
   D. 1, 4, 9, 16, ... (C)

*Explanation :* Odd numbers are numbers not divisible by 2 and increase by 2 each time, starting from 1.

3. What is the next number in the sequence:
1, 4, 9, 16, 25, ____ ?
   A. 30
   B. 36
   C. 49
   D. 32 (B)

*Explanation :* These are square numbers: ($1^2$, $2^2$, $3^2$, $4^2$, $5^2$). So the next is ($6^2 = 36$).

4. Which of the following is a triangular number?
   A. 8
   B. 9
   C. 10
   D. 12 (C)

*Explanation :* Triangular numbers are formed by adding natural numbers in order.
(1 + 2 + 3 + 4 = 10).

5. The sequence 1, 8, 27, 64 represents:
   A. Square numbers
   B. Cube numbers
   C. Even numbers
   D. Triangular numbers (B)

*Explanation :* These numbers are cubes:
($1^3$, $2^3$, $3^3$, $4^3$), so they are called cube numbers.

6. What is the sum of the first four odd numbers?
   A. 10
   B. 14
   C. 16
   D. 18 (C)

*Explanation :* First four odd numbers are 1, 3, 5, 7. Their sum is (1 + 3 + 5 + 7 = 16), which is a square number.

7. Adding odd numbers always gives which type of numbers?
   A. Even numbers
   B. Prime numbers
   C. Square numbers
   D. Cube numbers (C)

*Explanation :* The chapter shows that the sum of consecutive odd numbers always forms square numbers like 1, 4, 9, 16, etc.

8. The sequence 1, 2, 4, 8, 16 is known as:
   A. Powers of 3
   B. Counting numbers
   C. Powers of 2
   D. Triangular numbers (C)

*Explanation :* Each number is obtained by multiplying the previous number by 2, so this is the sequence of powers of 2.

9. A regular polygon with 7 sides is called a:
   A. Hexagon
   B. Heptagon
   C. Octagon
   D. Pentagon (B)

*Explanation :* A polygon with 7 equal sides and angles is called a heptagon, as explained in the shapes section.

10. Which number sequence represents the number of sides of regular polygons starting from a triangle?
   A. 1, 2, 3, 4, ...
   B. 2, 4, 6, 8, ...
   C. 3, 4, 5, 6, ...
   D. 1, 3, 6, 10, ... (C)

*Explanation :* Regular polygons start from a triangle (3 sides) and each next polygon has one more side, forming the counting sequence from 3 onward.