

# St. Andrews Scots Sr. Sec. School

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Session:2026-27

Worksheet

Class: VI

Subject: Mathematics

Topic: Patterns in Maths

## Multiple Choice Questions

1. What comes next in the pattern?

3, 18, 15, 24, 35, \_\_\_\_

(a) 42

(b) 46

(c) 48

(d) 50

2. Which rule is followed in this pattern?

7,14,28,56,112

(a) Add 7

(b) Multiply by 2

(c) Add 14

(d) Multiply by 7

3. Which of the following is a Fibonacci sequence?

(a) 2, 4, 6, 8, 10

(b) 1, 1, 2, 3, 5, 8

(c) 3, 6, 9, 12, 15

(d) 1, 4, 9, 16, 25

4. Which number should replace the question mark?

3, 6, 11, 18, 27, ?

(a) 36

(b) 37

(c) 38

(d) 39

**5. How many zeroes exist in the cube of 10?**

(a) 8

(b) 3

(c) 6

(d) 1

**6. How many triangles will be in the next figure?**

△

△△

△△△

△△△△

(a) 3

(b) 4

(c) 5

(d) 6

**7. A polygon with 7 sides is called:-**

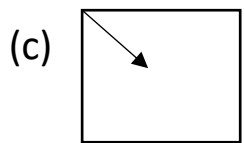
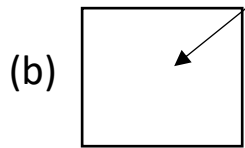
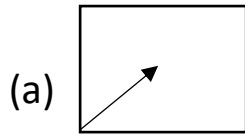
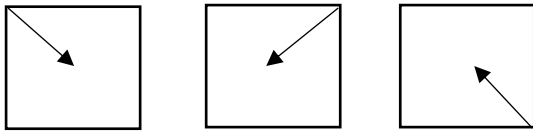
(a) Triangle

(b) Decagon

(c) Heptagon

(d) Nonagon

**8. What will be the next figure in the given pattern?**



**9. Which is the missing ordered pair in the pattern?**

**(1, 2) (2, 4) (3, 6) (4, 8) (\_\_, \_\_)**

(a) (5, 9)

(b) (5, 10)

(c) (6, 10)

(d) (6, 12)

**10. Which set contains only even numbers?**

(a) 3, 5, 7

(b) 10, 12, 14

(d) 9, 11, 13

(d) 15, 17, 19

## Subjective Questions

1. Find the Square numbers lying between 95 and 295.
  2. What happens when you multiply the triangular numbers by 6 and add 1? Which sequence do you get?
  3. Starting at 6, multiply by 2 and then subtract 2. Find first 6 terms.
  4. **A school builds a staircase using blocks:**
    - 1<sup>st</sup> step: 2 blocks
    - 2<sup>nd</sup> step: 6 blocks
    - 3<sup>rd</sup> step: 12 blocks
    - 4<sup>th</sup> step: ?
    - 5<sup>th</sup> step: ?
- (a) **Identify pattern rule.**
- (b) **Find number of blocks in 5<sup>th</sup> step.**
- (c) **Find total blocks in first 5 steps.**
5. Identify the smallest number that is a triangular number as well as a square number.

