

CBSE CLASS 6 MATHEMATICS

PATTERNS AND NUMBERS — MCQ WORKSHEET

Name: _____

Class: _____

Date: _____

Choose the correct option. Each question carries 1 mark.

1. FIND THE NEXT TWO TERMS

1. Which two numbers come next? 2, 5, 8, 11, ...

- A) 13, 16
- B) 14, 17
- C) 15, 18
- D) 16, 19

2. Which two numbers come next? 1, 4, 9, 16, ...

- A) 20, 25
- B) 24, 30
- C) 25, 36
- D) 20, 30

3. Which two numbers come next? 3, 6, 12, 24, ...

- A) 36, 48
- B) 48, 96
- C) 42, 84
- D) 30, 60

4. Which two numbers come next? 50, 45, 40, 35, ...

- A) 30, 25
- B) 32, 29
- C) 25, 20
- D) 31, 26

5. Which two numbers come next? 1, 3, 6, 10, 15, ...

- A) 20, 26
- B) 21, 28
- C) 20, 25
- D) 18, 24

2. FILL IN THE MISSING NUMBER

6. Fill in the blank: 7, 14, __, 28, 35

- A) 18
- B) 20
- C) 21
- D) 24

7. Fill in the blank: 81, 72, __, 54, 45

- A) 63
- B) 64
- C) 62
- D) 60

8. Fill in the blank: 2, 6, 18, __, 162

- A) 36
- B) 48
- C) 54
- D) 72

9. Fill in the blank: 5, 10, 20, __, 80

- A) 25
- B) 30
- C) 40
- D) 60

10. Fill in the blank: 1, 8, 27, __, 125

- A) 36
- B) 48
- C) 64
- D) 81

3. TYPE OF PATTERN / RULE

11. What is the rule? 4, 9, 14, 19, 24, ...

- A) Add 4
- B) Add 5
- C) Multiply by 5
- D) Subtract 5

12. What type of pattern is 2, 4, 8, 16, 32, ...?

- A) Equal-addition
- B) Decreasing
- C) Multiplicative
- D) Alternating

13. What is the rule? 100, 90, 80, 70, ...

- A) Subtract 5
- B) Subtract 10
- C) Add 10
- D) Divide by 10

14. Which describes 1, 4, 7, 10, 13, ...?

- A) Add 2
- B) Add 3
- C) Multiply by 3

D) Subtract 3

15. What is the rule? 3, 6, 12, 24, 48, ...

A) Add 3

B) Add 6

C) Multiply by 2

D) Multiply by 3

4. FIND THE Nth TERM

16. What is the 6th term of 5, 10, 15, 20, ...?

A) 25

B) 30

C) 35

D) 40

17. What is the 6th triangular number? (1, 3, 6, 10, 15, ...)

A) 18

B) 20

C) 21

D) 24

18. What is the 5th hexagonal number? (1, 6, 15, 28, 45, ...)

A) 35

B) 40

C) 45

D) 50

19. The sequence 4, 8, 12, 16, ... follows $4n$. What is its 7th term?

A) 24

B) 28

C) 32

D) 36

20. What is the 8th term of 2, 5, 8, 11, ...?

A) 20

B) 21

C) 23

D) 24

5. RELATIONS AMONG NUMBER SEQUENCES

21. The sum of first 7 odd numbers is?

A) 28

B) $7^2 = 49$

C) 35

D) 85

22. Adding up hexagonal numbers gives _____

- A) Cube numbers
- B) Square numbers
- C) Powers of 2
- D) Powers of 3

23. Adding pairs of consecutive triangular numbers gives _____

- A) Square number
- B) Cube number
- C) Skip by 5 sequence
- D) Hexagonal numbers

24. Multiplying triangular numbers by 6 and adding 1 gives _____ numbers.

- A) Square
- B) Cube
- C) Triangular
- D) Hexagonal

25. Adding counting numbers up from 1 to a number and then back down again to 1, gives _____.

- A) Square numbers
- B) Cube numbers
- C) Triangular numbers
- D) Hexagonal numbers

6. PATTERNS IN SHAPES

26. ▲ • ▲ • ▲ • ... What comes next?

- A) ▲
- B) •
- C) ■
- D) ◆

27. ■, ■■, ■■■, ■■■■, ... What comes next?

- A) ■■
- B) ■■■■
- C) ■■■■■■
- D) ■

28. Figure 1 has 1 circle, Figure 2 has 2, Figure 3 has 3. How many in Figure 5?

- A) 4
- B) 5
- C) 6
- D) 7

29. ★, ★★, ★★★, ★★★★, ... Which is Figure 6?

- A) ★★★★★★

- B) ★★★★★★
- C) ★★★★★★★
- D) ★★★★★

30. ○ △ □ ○ △ □ ... Which shape is in position 8?

- A) ○
- B) △
- C) □
- D) ○△

7. RELATION OF SHAPES TO NUMBER SEQUENCES

31. Figure 1 has 3 dots, Figure 2 has 6, Figure 3 has 9. How many in Figure 6?

- A) 15
- B) 18
- C) 21
- D) 24

32. Figures use 4, 7, 10 matchsticks. How many for Figure 5?

- A) 14
- B) 16
- C) 18
- D) 20

33. Figures have 1, 3, 5 squares. How many squares in Figure 7?

- A) 11
- B) 12
- C) 13
- D) 14

34. Figures have 2,5,8,11 dots. How many dots in Figure 10?

- A) 26
- B) 27
- C) 29
- D) 30

35. Figures 1–4 have 1,3,6,10 triangles. How many in Figure 6?

- A) 15
- B) 18
- C) 21
- D) 24

ANSWER KEY

1-B	2-C	3-B	4-A	5-B
6-C	7-A	8-C	9-C	10-C
11-B	12-C	13-B	14-B	15-C
16-B	17-C	18-C	19-B	20-C
21-B	22-A	23-A	24-D	25-A
26-A	27-C	28-B	29-B	30-C
31-B	32-C	33-C	34-C	35-C