

# Class 3 · Logical Reasoning — Analogies

|                       |                   |                    |                          |
|-----------------------|-------------------|--------------------|--------------------------|
| Total questions<br>25 | Total marks<br>25 | Time<br>60 minutes | Negative marking<br>None |
|-----------------------|-------------------|--------------------|--------------------------|

Each question has four options, of which only one is correct. Mark your answer on the answer sheet. The Achievers Section carries higher marks per question. The answer key with full solutions is at the end of this paper.

This is original practice material written to the Level 1 pattern. It is not a past paper and is not affiliated with SOF or any official olympiad body.

## Analogies

25 questions · 1 mark each · 25 marks

Q1.  $4 : 16 :: 5 : \underline{\hspace{1cm}}$

(A) 10

(B) 16

(C) 25

(D) 36

Q2.  $6 : 36 :: 5 : \underline{\hspace{1cm}}$

(A) 10

(B) 25

(C) 36

(D) 16

Q3.  $3 : 9 :: 5 : \underline{\hspace{1cm}}$

(A) 36

(B) 10

(C) 16

(D) 25

Q4.  $7 : 49 :: 4 : \underline{\hspace{1cm}}$

(A) 8

(B) 25

(C) 9

(D) 16

Q5.  $5 : 25 :: 6 : \underline{\hspace{1cm}}$

(A) 25

(B) 49

(C) 36

(D) 12

Q6.  $7 : 49 :: 8 : \underline{\hspace{1cm}}$

(A) 49

(B) 81

(C) 64

(D) 16

Q7.  $7 : 49 :: 6 : \underline{\hspace{1cm}}$

(A) 12

(B) 36

(C) 25

(D) 49

Q8.  $3 : 9 :: 8 : \underline{\hspace{1cm}}$

(A) 49

(B) 64

(C) 16

(D) 81

Q9.  $3 : 9 :: 7 : \underline{\hspace{1cm}}$

(A) 14

(B) 49

(C) 36

(D) 64

Q10.  $7 : 49 :: 12 : \underline{\hspace{1cm}}$

(A) 121

(B) 169

(C) 24

(D) 144

Q11.  $7 : 49 :: 3 : \underline{\hspace{1cm}}$

(A) 6

(B) 4

(C) 16

(D) 9

Q12.  $5 : 25 :: 3 : \underline{\hspace{1cm}}$

(A) 9

(B) 16

(C) 4

(D) 6

Q13.  $6 : 36 :: 7 : \underline{\hspace{1cm}}$

(A) 49

(B) 36

(C) 14

(D) 64

- Q14.  $5 : 25 :: 7 : \underline{\hspace{1cm}}$   
 (A) 49 (B) 64 (C) 14 (D) 36
- Q15.  $7 : 49 :: 5 : \underline{\hspace{1cm}}$   
 (A) 16 (B) 10 (C) 36 (D) 25
- Q16.  $3 : 9 :: 9 : \underline{\hspace{1cm}}$   
 (A) 64 (B) 81 (C) 100 (D) 18
- Q17.  $3 : 9 :: 10 : \underline{\hspace{1cm}}$   
 (A) 121 (B) 81 (C) 100 (D) 20
- Q18.  $4 : 16 :: 7 : \underline{\hspace{1cm}}$   
 (A) 36 (B) 64 (C) 14 (D) 49
- Q19.  $7 : 49 :: 10 : \underline{\hspace{1cm}}$   
 (A) 121 (B) 81 (C) 100 (D) 20
- Q20.  $6 : 36 :: 8 : \underline{\hspace{1cm}}$   
 (A) 64 (B) 81 (C) 16 (D) 49
- Q21.  $4 : 16 :: 12 : \underline{\hspace{1cm}}$   
 (A) 121 (B) 169 (C) 145 (D) 144
- Q22.  $6 : 36 :: 3 : \underline{\hspace{1cm}}$   
 (A) 9 (B) 6 (C) 4 (D) 16
- Q23.  $5 : 25 :: 4 : \underline{\hspace{1cm}}$   
 (A) 9 (B) 25 (C) 16 (D) 8
- Q24.  $5 : 25 :: 8 : \underline{\hspace{1cm}}$   
 (A) 64 (B) 49 (C) 16 (D) 81
- Q25.  $3 : 9 :: 6 : \underline{\hspace{1cm}}$   
 (A) 37 (B) 49 (C) 36 (D) 25

## Answer Key

|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 10       |
| <b>C</b> | <b>B</b> | <b>D</b> | <b>D</b> | <b>C</b> | <b>C</b> | <b>B</b> | <b>B</b> | <b>B</b> | <b>D</b> |
| 11       | 12       | 13       | 14       | 15       | 16       | 17       | 18       | 19       | 20       |
| <b>D</b> | <b>A</b> | <b>A</b> | <b>A</b> | <b>D</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>C</b> | <b>A</b> |
| 21       | 22       | 23       | 24       | 25       |          |          |          |          |          |
| <b>D</b> | <b>A</b> | <b>C</b> | <b>A</b> | <b>C</b> |          |          |          |          |          |

## Solutions

- Q1. (C) The second number is the first multiplied by itself:  $4 \times 4 = 16$ , so  $5 \times 5 = 25$ .
- Q2. (B) The second number is the first multiplied by itself:  $6 \times 6 = 36$ , so  $5 \times 5 = 25$ .
- Q3. (D) The second number is the first multiplied by itself:  $3 \times 3 = 9$ , so  $5 \times 5 = 25$ .

- Q4. (D) The second number is the first multiplied by itself:  $7 \times 7 = 49$ , so  $4 \times 4 = 16$ .
- Q5. (C) The second number is the first multiplied by itself:  $5 \times 5 = 25$ , so  $6 \times 6 = 36$ .
- Q6. (C) The second number is the first multiplied by itself:  $7 \times 7 = 49$ , so  $8 \times 8 = 64$ .
- Q7. (B) The second number is the first multiplied by itself:  $7 \times 7 = 49$ , so  $6 \times 6 = 36$ .
- Q8. (B) The second number is the first multiplied by itself:  $3 \times 3 = 9$ , so  $8 \times 8 = 64$ .
- Q9. (B) The second number is the first multiplied by itself:  $3 \times 3 = 9$ , so  $7 \times 7 = 49$ .
- Q10. (D) The second number is the first multiplied by itself:  $7 \times 7 = 49$ , so  $12 \times 12 = 144$ .
- Q11. (D) The second number is the first multiplied by itself:  $7 \times 7 = 49$ , so  $3 \times 3 = 9$ .
- Q12. (A) The second number is the first multiplied by itself:  $5 \times 5 = 25$ , so  $3 \times 3 = 9$ .
- Q13. (A) The second number is the first multiplied by itself:  $6 \times 6 = 36$ , so  $7 \times 7 = 49$ .
- Q14. (A) The second number is the first multiplied by itself:  $5 \times 5 = 25$ , so  $7 \times 7 = 49$ .
- Q15. (D) The second number is the first multiplied by itself:  $7 \times 7 = 49$ , so  $5 \times 5 = 25$ .
- Q16. (B) The second number is the first multiplied by itself:  $3 \times 3 = 9$ , so  $9 \times 9 = 81$ .
- Q17. (C) The second number is the first multiplied by itself:  $3 \times 3 = 9$ , so  $10 \times 10 = 100$ .
- Q18. (D) The second number is the first multiplied by itself:  $4 \times 4 = 16$ , so  $7 \times 7 = 49$ .
- Q19. (C) The second number is the first multiplied by itself:  $7 \times 7 = 49$ , so  $10 \times 10 = 100$ .
- Q20. (A) The second number is the first multiplied by itself:  $6 \times 6 = 36$ , so  $8 \times 8 = 64$ .
- Q21. (D) The second number is the first multiplied by itself:  $4 \times 4 = 16$ , so  $12 \times 12 = 144$ .
- Q22. (A) The second number is the first multiplied by itself:  $6 \times 6 = 36$ , so  $3 \times 3 = 9$ .
- Q23. (C) The second number is the first multiplied by itself:  $5 \times 5 = 25$ , so  $4 \times 4 = 16$ .
- Q24. (A) The second number is the first multiplied by itself:  $5 \times 5 = 25$ , so  $8 \times 8 = 64$ .
- Q25. (C) The second number is the first multiplied by itself:  $3 \times 3 = 9$ , so  $6 \times 6 = 36$ .

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