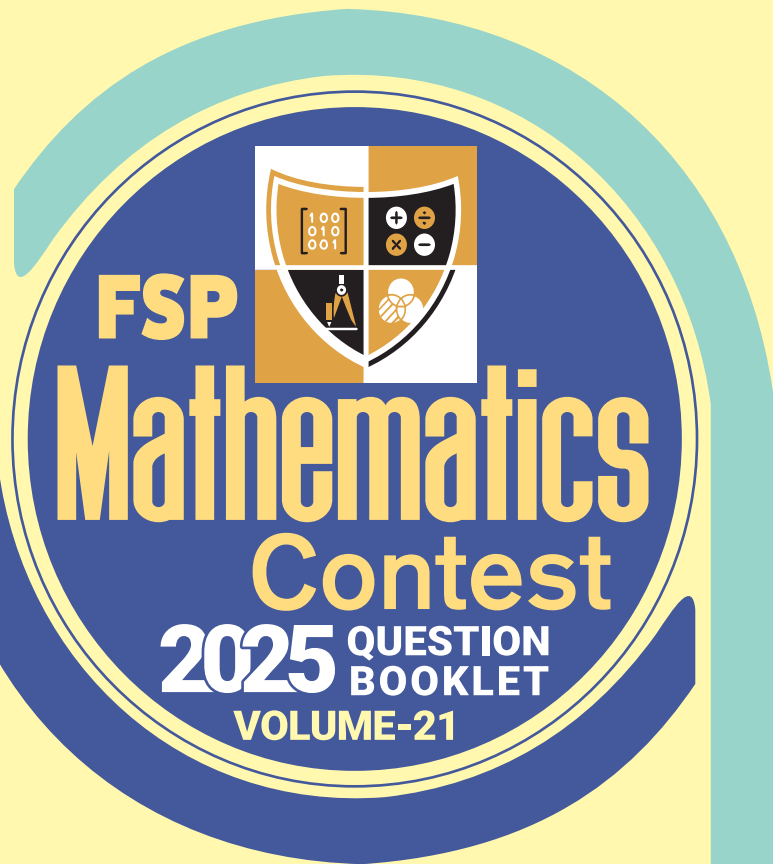




# International FSP Contests



## GRADE 9 & 10

VIBRANT YOUNGSTERS

Time Allowed : 90 Minutes  
Maximum Marks : 90

EXHIBIT YOUR SKILLS TO THE WORLD

## INSTRUCTIONS FROM THE EXAMINATION INVIGILATORS

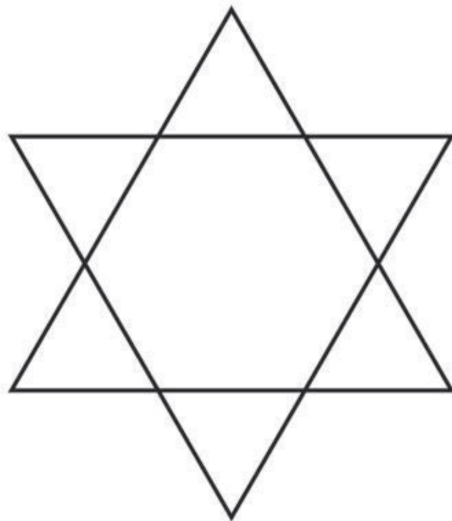
- 1) Invigilators must be carried out promptly.
- 2) Don't start attempting the paper until instructed by the invigilator.
- 3) Carefully recheck your name, father name, school name, address etc. at the bubble sheet / answer sheet.
- 4) Record all answers on the bubble sheet only. select best answer from the four given options and mark only one option in each question.
- 5) Use blue / black ink to fill up the circles for your answers on the bubble sheet use of lead pencil is not allowed.
- 6) Use of any helping material including cell phones and electronic devices is strictly prohibited.
- 7) Every correct answer earns three points. there would be negative marking. one point would be deducted for every incorrect answer.
- 8) Candidates may not leave the examination room unescorted for any reason, and this includes using the washroom.
- 9) No materials or electronic devices shall be brought in to the room.
- 10) There are five categories of the contest as under:
  - A** Vibrant youngsters Grade 1 & 2
  - B** Vibrant youngsters Grade 3 & 4
  - C** Vibrant youngsters Grade 5 & 6
  - D** Vibrant youngsters Grade 7 & 8
  - E** Vibrant youngsters Grade 9 & 10 / 0-levels
- 11) Only registered students can participate in the contest.
- 12) No candidate shall take out of the hall any answer book(s) or part of an answer book, whether used or unused, or other supplied material.
- 13) If a participant does not understand a word or phrase on the exam paper, neither examiner nor invigilator is permitted to answer.
- 14) for information about upcoming contests or providing valuable feedback, please visit [www.fspcompetitions.org](http://www.fspcompetitions.org)
- 15) Any academic misconduct or malpractice must be reported to FSP vibrant youngsters at [info@fspcompetitions.org](mailto:info@fspcompetitions.org)

**Q 1.** A hall has 18 seats in the first row, 22 in the second row, 26 in the third row, and so on for 25 rows. How many seats are there in the hall?

- A** 1250
- B** 1350
- C** 1450
- D** 1650

**Q 2.** How many triangles are there in the figure below?

- A** 18
- B** 20
- C** 22
- D** 24



**Q 3.** The digits 1–9 are placed in a  $3 \times 3$  grid. The product of the first row is 30, the product of the second row is 84, and the product of the first column is 180. What is the product of the shaded cells?

- A** 120
- B** 150
- C** 180
- D** 210

**Q 4.** Replace the “?” with the correct number:

6 18 9

12 ? 8

15 10 5

- A** 12
- B** 14
- C** 16
- D** 18

**Q 5.** Each shape has a value. The totals are given at the end of rows and columns. What is the missing total “?”?

Row 1:  $\blacksquare + \blacksquare + \blacksquare = 9$

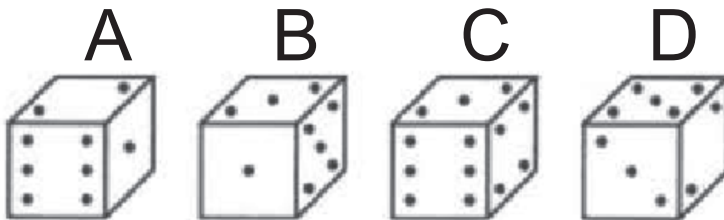
Row 2:  $\bullet + \bullet + \blacksquare = 11$

Row 3:  $\star + \star + \bullet = 14$

What is the value of  $\blacksquare + \bullet + \star$ ?

- A** 19
- B** 12
- C** 15
- D** 17

**Q 6.** Four views of a dice are shown. Which number is opposite to 5?

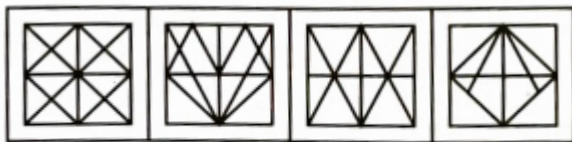


- A** 1
- B** 2
- C** 3
- D** 6

**Q 7.** Which figure contains the embedded Figure (X)?



X



1

2

3

4

- A** Figure A
- B** Figure B
- C** Figure C
- D** Figure D

**Q 8.** A digital clock shows 11:11 and its reflection also reads 11:11. How many times in 24 hours will the clock and its reflection show the same time?

- A** 12
- B** 22
- C** 24
- D** 36

**Q 9.** The pattern 123412341234... is continued to 1600 digits. What is the sum of all digits?

- A** 3200
- B** 4000
- C** 3208
- D** 3212

**Q 10.** In the sequence:

K L 3 Q # 5 T A 8 % W B 2 D 6 G Z 9 Y @  
What comes after "5 T A"?

- A** 8 % W
- B** 9 Y @
- C** 6 G Z
- D** Q # 5

**Q 11.** Arrange the letters of the word "CHEMISTRY" alphabetically. Assign  $A=1$ ,  $B=2$ , ...  $Z=26$ . What is the difference between the sum of letters at odd positions and even positions?

- A** 7
- B** 9
- C** 16
- D** 13

**Q 12.** Five houses are painted with red, blue, green, yellow, and white.

Blue is to the left of yellow.

Green is between red and white.

Yellow is not at either end.

What is the color of the third house?

- A** Red
- B** Blue
- C** Yellow
- D** Green



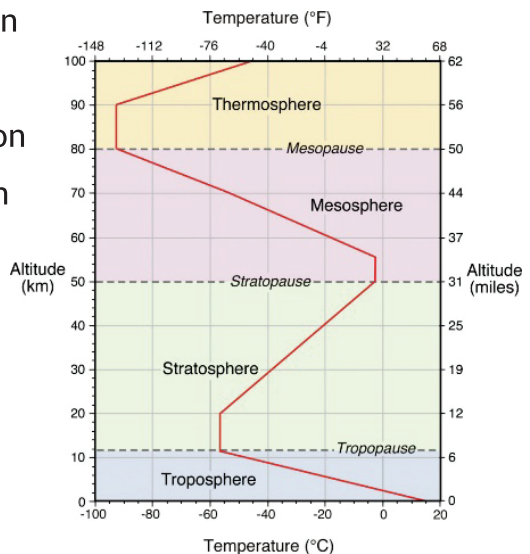


**Q 13.** A machine beeps every 9 minutes, another every 12 minutes, and another every 15 minutes. If they all beep together at 6:00 a.m., when will they next beep together?

- A** 7:00 a.m.
- B** 8:00 a.m.
- C** 9:00 a.m.
- D** 10:00 a.m.

**Q 14.** The graph shows temperature decreasing as altitude increases. Which statement best describes the relationship?

- A** Strong positive correlation
- B** Weak positive correlation
- C** Strong negative correlation
- D** Weak negative correlation



**Q 15.** If  $3x - 5 = 16$  find value of  $2x + 7 = ?$

- A** 14
- B** 19
- C** 21
- D** 25

**Q 16.** A necklace has 2 red beads for every 5 black beads. How many black beads are needed for 12 red beads?

- A** 20
- B** 25
- C** 30
- D** 35

**Q 17.** Ali climbs a staircase of 10 steps, taking 1 or 2 steps at a time. In how many ways can he climb?

- A** 55
- B** 89
- C** 144
- D** 233

**Q 18.** A bus is designed for 70 people (to nearest 10). Can it carry 74 people?

- A** Yes
- B** No
- C** Only if double decker
- D** Not enough info

**Q 19.** Five sheets are folded into a booklet of 20 pages. What is the sum of three -page numbers on the same sheet as page 7?

- A** 23
- B** 27
- C** 31
- D** 35

**Q 20.** A mother has 8 children, each born 18 months apart. If the eldest is 20 years, how old is the youngest?

- A** 8
- B** 9
- C** 10
- D** 11

**Q 21.** A person earns Rs. 25 one day, spends Rs. 20 the next. Repeating this, when will savings reach Rs. 50?

- A** Day 5
- B** Day 7
- C** Day 9
- D** Day 11

**Q 22.** The price of sugar is reduced by 4%. With the same money that bought 50 kg before, how much can now be bought?

- A** 51 kg
- B** 52 kg
- C** 53 kg
- D** 54 kg

**Q 23.** Fatima covers 15% of her journey in 30% of the time. What is the ratio of her average speed in the first part to the remaining?

- A** 2:3
- B** 3:2
- C** 1:2
- D** 2:1

**Q 24.** In a bag of coins, the ratio of Rs.1, Rs.2, and Rs.5 coins is 2:3:5. If total money is Rs.100, how many Rs.5 coins are there?

- A** 5
- B** 6
- C** 8
- D** 10

**Q 25.** A cube of side 4 cm is dipped in paint. How many smaller 1 cm cubes have exactly two faces painted?

- A** 24
- B** 32
- C** 40
- D** 48

**Q 26.**

Sara buys 24 plants for \$120. Roses cost \$3, Tulips \$5, Lilies \$7. She buys at least one of each. How many lilies did she buy?

- A** 5
- B** 6
- C** 7
- D** 8

**Q 27.** In a row, Amir is 7th from the left, Bilal is 10th from the right. If there are 20 children, what is the total number of children between them?

- A** 2
- B** 3
- C** 4
- D** 5

**Q 28.** A man walks 300 m north, then 400 m east, then 300 m south, then 400 m west. How far is he from the start?

- A** 0
- B** 100 m
- C** 200 m
- D** 400 m

**Q 29.** What is the units digit of  $720257^{2025}$ ?

- A** 1
- B** 3
- C** 7
- D** 9

**Q 30.** The sum of first 30 odd numbers is:

- A** 900
- B** 841
- C** 729
- D** 961

# ANSWER SHEET

## GRADE 9 & 10

Q.NO ANSWER

- |    |                                  |                                  |                                  |                                  |
|----|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 1  | <input type="radio"/> A          | <input type="radio"/> B          | <input type="radio"/> C          | <input checked="" type="radio"/> |
| 2  | <input type="radio"/> A          | <input type="radio"/> B          | <input checked="" type="radio"/> | <input type="radio"/> D          |
| 3  | <input type="radio"/> A          | <input type="radio"/> B          | <input checked="" type="radio"/> | <input type="radio"/> D          |
| 4  | <input type="radio"/> A          | <input checked="" type="radio"/> | <input type="radio"/> C          | <input type="radio"/> D          |
| 5  | <input type="radio"/> A          | <input checked="" type="radio"/> | <input type="radio"/> C          | <input type="radio"/> D          |
| 6  | <input type="radio"/> A          | <input checked="" type="radio"/> | <input type="radio"/> C          | <input type="radio"/> D          |
| 7  | <input type="radio"/> A          | <input type="radio"/> B          | <input checked="" type="radio"/> | <input type="radio"/> D          |
| 8  | <input type="radio"/> A          | <input checked="" type="radio"/> | <input type="radio"/> C          | <input type="radio"/> D          |
| 9  | <input type="radio"/> A          | <input checked="" type="radio"/> | <input type="radio"/> C          | <input type="radio"/> D          |
| 10 | <input checked="" type="radio"/> | <input type="radio"/> B          | <input type="radio"/> C          | <input type="radio"/> D          |
| 11 | <input type="radio"/> A          | <input type="radio"/> B          | <input checked="" type="radio"/> | <input type="radio"/> D          |
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| 15 | <input checked="" type="radio"/> | <input type="radio"/> B          | <input type="radio"/> C          | <input type="radio"/> D          |

Q.NO ANSWER

- |    |                                  |                                  |                                  |                                  |
|----|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 16 | <input type="radio"/> A          | <input type="radio"/> B          | <input checked="" type="radio"/> | <input type="radio"/> D          |
| 17 | <input type="radio"/> A          | <input checked="" type="radio"/> | <input type="radio"/> C          | <input type="radio"/> D          |
| 18 | <input checked="" type="radio"/> | <input type="radio"/> B          | <input type="radio"/> C          | <input type="radio"/> D          |
| 19 | <input type="radio"/> A          | <input type="radio"/> B          | <input type="radio"/> C          | <input checked="" type="radio"/> |
| 20 | <input type="radio"/> A          | <input checked="" type="radio"/> | <input type="radio"/> C          | <input type="radio"/> D          |
| 21 | <input type="radio"/> A          | <input type="radio"/> B          | <input checked="" type="radio"/> | <input type="radio"/> D          |
| 22 | <input type="radio"/> A          | <input checked="" type="radio"/> | <input type="radio"/> C          | <input type="radio"/> D          |
| 23 | <input type="radio"/> A          | <input type="radio"/> B          | <input checked="" type="radio"/> | <input type="radio"/> D          |
| 24 | <input type="radio"/> A          | <input type="radio"/> B          | <input type="radio"/> C          | <input checked="" type="radio"/> |
| 25 | <input checked="" type="radio"/> | <input type="radio"/> B          | <input type="radio"/> C          | <input type="radio"/> D          |
| 26 | <input type="radio"/> A          | <input type="radio"/> B          | <input checked="" type="radio"/> | <input type="radio"/> D          |
| 27 | <input type="radio"/> A          | <input checked="" type="radio"/> | <input type="radio"/> C          | <input type="radio"/> D          |
| 28 | <input checked="" type="radio"/> | <input type="radio"/> B          | <input type="radio"/> C          | <input type="radio"/> D          |
| 29 | <input type="radio"/> A          | <input type="radio"/> B          | <input checked="" type="radio"/> | <input type="radio"/> D          |
| 30 | <input checked="" type="radio"/> | <input type="radio"/> B          | <input type="radio"/> C          | <input type="radio"/> D          |





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 [www.fspcompetitions.org](http://www.fspcompetitions.org)

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