



International Vedic Maths Olympiad 2024
Upper Primary
Time allowed - 1 Hour

This Olympiad consists of 40 multiple choice questions.

2 marks are awarded for correct answers for questions 1 - 25

3 marks are awarded for correct answers for questions 26 - 35 and -1 mark for each incorrect answer.

4 marks are awarded for correct answers for questions 36 - 40 and -2 marks for each incorrect answer.

Do not guess the answers. If you do not know how to answer a question, skip it and come back later if there is time.

Answers, A, B, C, D or E, must be written on the answer sheet provided.

Rules

Rough workings can be done on plain paper.

Electronic devices such as computers, calculators, smart watches and mobile phones are not allowed.

Measuring or drawing instruments are not allowed.

Questions 1 - 25: Score 2 marks for each correct answer.

1. $25 + 125 + 225 + 325 + 425 + 525$

- A** 1500 **B** 1525 **C** 1600 **D** 1625 **E** 1650

2. $73000 - 4600$

- A** 68400 **B** 61600 **C** 69400 **D** 72540 **E** 27000

3. Which of the following is divisible by 9?

- A** 187336 **B** 721281 **C** 994528 **D** 814218 **E** 456309

4. 73×77

- A** 4931 **B** 5621 **C** 5231 **D** 5871 **E** 6621

5. 142857×7

- A** 989999 **B** 998999 **C** 999989 **D** 999999 **E** 1000099

6. $110211 \div 9$

- A** 12246/3 **B** 12134/5 **C** 11134/5 **D** 12023/4 **E** 12245/6

7. 93×94

- A** 8742 **B** 9102 **C** 9832 **D** 8642 **E** 9372

8. 65^2

- A** 3625 **B** 4225 **C** 4825 **D** 3025 **E** 4425

9. 114×112

- A** 12668 **B** 126168 **C** 12768 **D** 12868 **E** 12968

10. What is the last digit in the answer to 13948×18063 ?

- A 2 B 4 C 6 D 8 E 0

11. What is the next number in this sequence?

100, 99, 96, 91,

- A 85 B 84 C 83 D 82 E 81

12. Which of the following is not 19 more than a square number?

- A 55 B 68 C 83 D 110 E 140

13. In a shop I spend \$2.98, \$4.97 and \$5.99. How much change do I receive from \$20?

- A \$5.96 B \$6.06 C \$6.16 D \$7.06 E \$13.94

14. $\frac{19}{20} + \frac{2}{3}$

- A $\frac{19}{23}$ B $\frac{19}{60}$ C $1\frac{31}{60}$ D $1\frac{37}{60}$ E $1\frac{7}{20}$

15. $\frac{15}{16} \times \frac{8}{125}$

- A $\frac{3}{25}$ B $\frac{3}{40}$ C $\frac{3}{50}$ D $\frac{3}{80}$ E $\frac{3}{100}$

16. When using Vertically and Crosswise to multiply 263×479 , what is the result of the third step before any carry digits have been added?

- A 38 B 42 C 66 D 72 E 75

17. $? \times 109 = 11663$

- A 87 B 97 C 107 D 117 E 127

18. Sweekriti has \$360. She spends half on a bicycle. She spends one third of the remainder on cycling outfit. She then spends one quarter of the remainder on a backpack. How much does she have left?

- A \$20 B \$30 C \$60 D \$90 E \$120

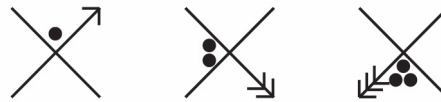
19. Noriko is travelling from Tokyo to London and changes 426000 Japanese Yen into GB Pounds. The exchange rate is 200 Yen = 1 Pound. How many Pounds does she receive?

- A £213 B £2130 C £21300 D £213000 E £2130000

20. Kamala goes swimming at her local pool. The length of the pool is 25 metres. She swims 4 km. How many lengths does she swim? (1 km = 1000 metres)

- A 160 B 80 C 120 D 200 E 240

21. Here are the first three patterns in a sequence.



Which of the following is the fourth pattern in the sequence?



22. In which of the following ranges is there a multiple of 81?

- A 170 to 200 B 270 to 300 C 370 to 400 D 470 to 500 E 570 to 600

23. Today is Saturday at midday. What day of the week is 2024 minutes before this?

- A Monday B Tuesday C Wednesday D Thursday E Friday

24. How many zeros are in the answer to $663663663221 \div 221$?

- A 2 B 3 C 4 D 5 E 6

25. Which of the following gives a calculation for the 12th triangular number?

- A 5×9 B 5×11 C 6×11 D 6×13 E 7×13

Questions 26 - 35: Score 3 marks for each correct answer. -1 mark for each incorrect answer.

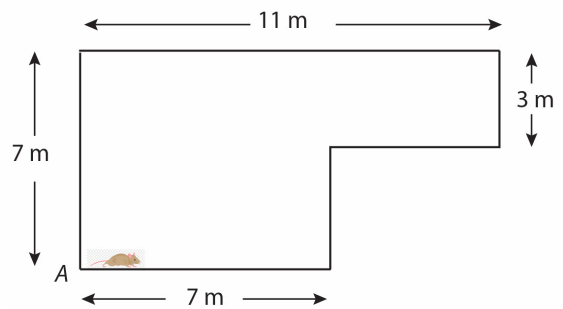
26. $31 \times 96 \times 99 \div 93$

- A 4624 B 8324 C 9626 D 3242 E 3168

27. The figure shows the plan of a room. A mouse starts at point A and runs along the edge until getting back to point A.

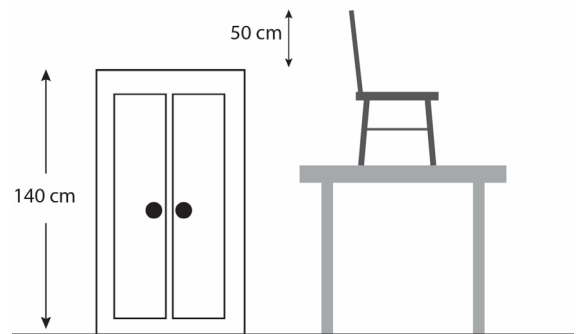
How far has the mouse run when it completes $\frac{3}{4}$ of the circuit?

- A 21 m B 24 m C 27 m
D 30 m E 33 m



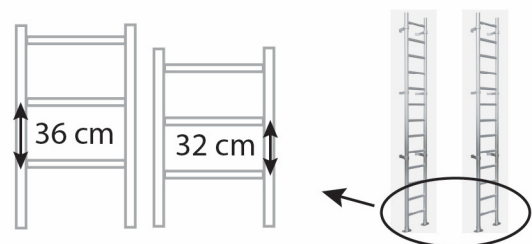
28. My cupboard is 140 cm tall. When I place a chair on top of a table, they are 50 cm taller than the cupboard. The table is 8 cm taller than the chair. How tall is the chair?

- A 71 cm B 79 cm C 81 cm
D 89 cm E 91 cm



29. Jacob and Leah both have long ladders. The rungs on Jacob's ladder are each 36 cm apart. The rungs on Leah's ladder are each 32 cm apart. Jacob and Leah both start climbing their ladders. How high will they be when they are first at the same height?

- A 248 cm B 288 cm C 426 cm
D 576 cm E 1152 cm



Questions 36 - 40: Score 4 marks for each correct answer. -2 marks for each incorrect answer.

36. What fraction of the whole rectangle is shaded?

- A $\frac{1}{2}$ B $\frac{2}{3}$ C $\frac{5}{8}$
 D $\frac{7}{15}$ E $\frac{7}{16}$



37. The diagram shows the plan for Jamie Oliver's new vegetable garden. Each rectangle is used for a different vegetable. Both the rectangles for carrots and potatoes are twice as long as they are wide. What is the area for beans?

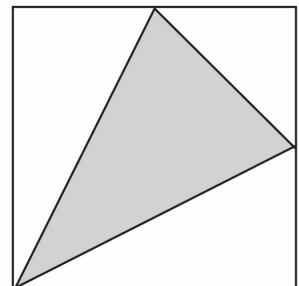
- A 72 m² B 74 m² C 84 m²
 D 96 m² E 136 m²

Beans ?	Carrots 72 m ²
Potatoes 128 m ²	Onions 80 m ²

38. The shaded triangle is made by joining one corner of a square to midpoints of two edges. The area of the shaded triangle is 600 cm².

What is the perimeter of the square?

- A 40 cm B 80 cm C 120 cm
 D 160 cm E 400 cm



39. In the code, each digit is represented by three letters (except 9 which has two letters).

Which of the five words below can be the answer to,

1	2	3	4	5	6	7	8	9
A	B	C	D	E	F	G	H	I
J	K	L	M	N	O	P	Q	R
S	T	U	V	W	X	Y	Z	

$$\begin{array}{r} \text{H O P E} \\ + \text{F E A R} \\ \hline \end{array}$$

- A ALIVE B SINEW C CLOUD D SWARM E PEACE

40. In the figure, each spot lies on the corner of a regular pentagon.

What is the minimum number of regular pentagons needed to be drawn so that all the spots lie on pentagons.

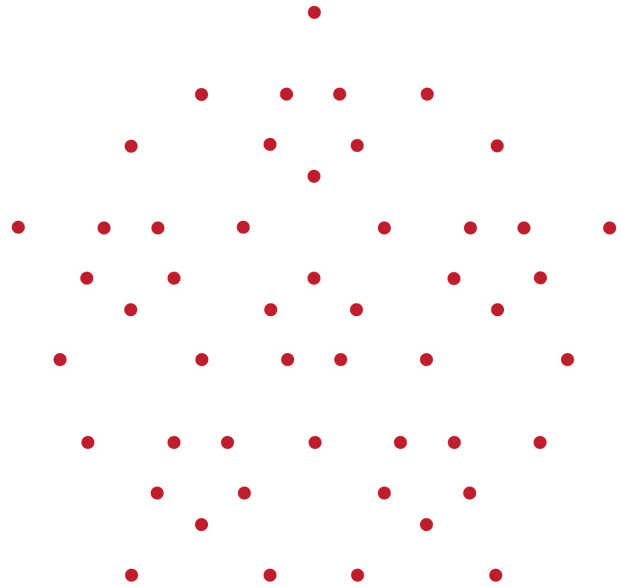
A 6

B 8

C 10

D 11

E 15



Answer Key Upper Primary IVMO 2024

Questions 1 - 25: Score 2 marks for each correct answer, 0 marks for each incorrect answer.

Questions 26 - 35: Score 3 marks for each correct answer, -1 mark for each incorrect answer.

Questions 36 - 40: Score 4 marks for each correct answer, -2 marks for each incorrect answer.

Score zero marks if any question is not answered.

1. E	11. B	21. C	31. C
2. A	12. D	22. D	32. A
3. E	13. B	23. E	33. Accept either B or C
4. B	14. D	24. E	34. B
5. D	15. C	25. D	35. C
6. E	16. D	26. E	36. E
7. A	17. C	27. C	37. C
8. B	18. D	28. E	38. D
9. C	19. B	29. B	39. D
10. B	20. A	30. C	40. B