



UNIFIED COUNCIL

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Unified International
Mathematics Olympiad

UNIFIED INTERNATIONAL MATHEMATICS OLYMPIAD

CLASS - 3

Question Paper Code : UM9246

KEY

1. C	2. B	3. C	4. C	5. C	6. A	7. B	8. A	9. A	10. D
11. D	12. B	13. B	14. C	15. D	16. A	17. B	18. C	19. C	20. C
21. D	22. C	23. D	24. A	25. D	26. D	27. B	28. A	29. B	30. D
31. A	32. B	33. A	34. B	35. D	36. B	37. C	38. A	39. B	40. A
41. C	42. D	43. B	44. B	45. D	46. C	47. D	48. B	49. D	50. C

EXPLANATIONS

MATHEMATICS

1: (C) $6 \times 5 + 15 = 30 + 15 = 45 = 9 \times 5$

2: (B) Cost of one water bottle = ₹ $42 \div 6 = ₹ 7$

∴ Cost of 4 bottles = ₹ $7 \times 4 = ₹ 28$

3: (C) Difference between 4827 and 3429 = $4827 - 3429 = 1398$

Sum of 3809 and 2134 = $3809 + 2134 = 5943$

∴ Difference of 5943 & 1398 = $5943 - 1398 = 4545$

4: (C) Required number = $7 \times 12 = 84$

Thrice of required number = $3 \times 84 = 252$

5: (C) Number of numbers between 250 & 800 = $800 - 250 = 550$

∴ Middle number = $\frac{550}{2} = 275$

∴ Required number = $250 + 275 = 525$

6: (A) Present ages sum of sid and Mehak = $40 \text{ years} - 2 \times 8 \text{ years} = 24 \text{ years}$

Given age of sid = 15 years

∴ Age of Mehak = $24 \text{ years} - 15 \text{ years} = 9 \text{ years}$

- 7: (B) $236 + 79 = 315 = 7 \times 45$
- 8: (A) Required number = $993 - 143 + 13 - 793 = 70$
- 9: (A) Number marbles having Reyan = $231 + 538 + 211 = 980$
 \therefore Blue marbles + green marbles = 980
 \therefore 4 times green marbles + green marbles = 980
 5 times green marbles = 980
 \therefore No. of green marbles = $\frac{980}{5} = 196$
- 10: (D) $86 - 46 = 40$
 $\therefore \frac{40}{2} = 20$
 No. of books = $20 + 46 = 66$.
 \therefore Nancy has to give 66 bookmarks to Lasya.
- 11: (D) 1 mug holds $\frac{8 \text{ glasses}}{2} = 4$ glasses of water
 \therefore No. of glasses of water requires to fill one flask = 4×10
 \therefore Number of glasses of water required to fill 3 flasks
 = $40 \times 3 = 120$
- 12: (B) $\frac{3}{4} = 1 - \textcircled{?}$
 $\therefore \textcircled{?} = 1 - \frac{3}{4} = \frac{4-3}{4} = \frac{1}{4}$
- 13: (B) $\begin{array}{r} 4)12(3 \\ \underline{12} \\ 0 \end{array} \quad \begin{array}{r} 4)15(3 \\ \underline{12} \\ 3 \end{array}$
 15 gives remainder 3 which is odd when divided by 4
- 14: (C) Number of hours worked in a week = $7 \times 5 = 35$ hour
 Number of hours worked for two weeks
 = $2 \times 35 \text{ h} = 70 \text{ h}$
 \therefore Amount recived for 70 hours
 = $70 \times ₹ 60 = ₹ 4200$

- 15: (D) $900 = 300 \times 3$
- 16: (A) $7 \times 7 + 7 + 7 = 7 \times 7 + 7 \times 2 = 7 \times 9$
- 17: (B) 7 m 43 cm is the smallest in the given options
- 18: (C) Total weight of (2 × 2 apples + 3 apples) = 994 g
 \therefore Weight of one apple = $\frac{994 \text{ g}}{7} = 142 \text{ g}$
 Weight of basket = 4 apples weight = $142 \text{ g} \times 4 = 568 \text{ g}$
- 19: (C) LCM of 12, 9 & 6 = 36
 $\therefore \frac{5}{12} = \frac{5}{12} \times \frac{3}{3} = \frac{15}{36}$
 $\frac{4}{9} = \frac{4}{9} \times \frac{4}{4} = \frac{16}{36}$
 $\frac{3}{6} = \frac{3}{6} \times \frac{6}{6} = \frac{18}{36}$
 $\therefore \frac{5}{12}, \frac{4}{9}, \frac{3}{6}$ is the required order
- 20: (C) 1 out of 2 equal parts of a circle is a semicircle.
- 21: (D) Total mass of 9 slices = 630 g
 \therefore Mass of 1 slice = $\frac{630 \text{ g}}{9} = 70 \text{ g}$
- 22: (C) $\frac{7}{12} - \frac{1}{4} = \frac{7}{12} - \frac{3}{12} = \frac{4}{12} = \frac{1}{3}$
- 23: (D) Total number of triangles $\rightarrow 4 \times 2 = 8$
 Shaded triangle $\rightarrow 5$
 Fraction of figure shaded $\rightarrow \frac{5}{8}$
- 24: (A) $21 \times 10 + 5 \times 100 + 8 = 500 + 210 + 8 = 718$
- 25: (D) 21, 55, 31, 81, 1, 23, 93, 69, 59, 37, 47, 51, 27
 are the given odd numbers in the table
- 26: (D) $3870 - 2542 = 1328$
- 27: (B) $8 + 4 + 6 = 18$ & $4 + 6 + 8 = 18$

28: (A) Given $\square + \triangle = 3147$ & $\triangle + \triangle + \square = 5489$

$\therefore \triangle = 5489 - 3147 = 2342$

$2342 + \square = 3147$

$\square = 3147 - 2342 = 805$

$\therefore \triangle - \square = 2342 - 805 = 1537$

29: (B) $X = 77 - 29 = 48$

30: (D) Any odd number multiplied by '5' gives odd number

31: (A) Number of mangoes

$$= \frac{2 \text{ kg}}{250 \text{ g}} = \frac{2000 \text{ g}}{250 \text{ g}} = 8$$

32: (B) Time taken to solve one problem = $\frac{2 \text{ h } 15 \text{ min}}{9}$

$$= \frac{135 \text{ m}}{9} = 15 \text{ m}$$

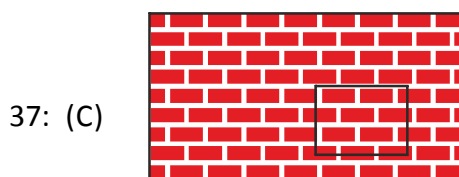
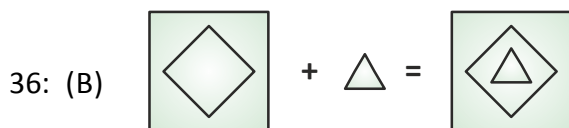
33: (A) It is the combination of cone & cylinder

34: (B) 1 kg 39 g is the lightest in the given options

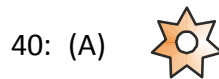
35: (D) $10 \text{ p.m.} - 1 \text{ p.m.} = 9 \text{ hours}$

\therefore No. of half - hours = $\frac{9 \text{ hours}}{\left(\frac{1}{2}\right) \text{ hours}} = 18$

REASONING



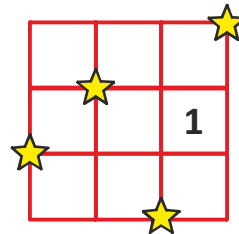
39: (B) Each pair contains a letter each from backward sequence (Z-A) and forward sequence (A-Z) following the natural alphabetical sequence.



41: (C)

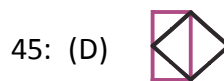
Z	Y	X	W	V	U	T	S	R	Q	P	O	N	M	L	K	J	I	H	G	F	E	D	C	B	A
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

42: (D)

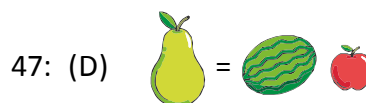


43: (B) 'G' is the 6th letter from 'A', 'M' is the 6th letter from 'G'. Similarly 'Y' is the 6th letter from 'S'.

44: (B) Except option (B) fan, all other items are eatable.

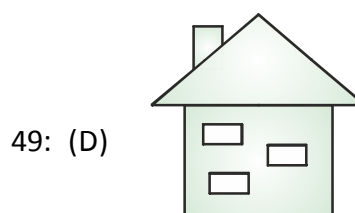


CRITICAL THINKING



48: (B) 9

FOODSTU**FF**FOODSTU**FF**FOODSTU**FF**



50: (C) C is the longest path between house and the boy.