



Unified International  
Mathematics Olympiad

**UNIFIED INTERNATIONAL MATHEMATICS OLYMPIAD (UPDATED)**

**CLASS - 3**

**Question Paper Code : UM9274**

**KEY**

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

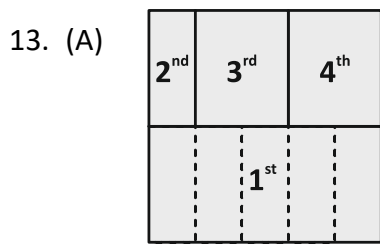
**EXPLANATIONS**

**MATHEMATICS**

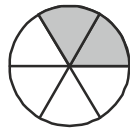
01. (D) Triangle has no parallel lines.
02. (D) Watermelon + X = 6 kg  
Y = 10 kg – 6 kg  
= 4 kg
03. (C)  $24 \times 8 = 192$   
 $4 \times 48 = 192$
04. (B) Varun =  $17 + 30 = 47$   
 $= 47 - 22 = 25$   
Vihan =  $22 + 25 = 47$

05. (A)
06. (C)  $356 + 110 = 400 + 100 = 500$
07. (D)  $50 \times 100 = 5000$ ,  $40 \times 100 = 4000$ ,  
 $210 \times 10 = 2100$ ,  $789 \times 10 = 7890$
08. (C)  $\frac{3}{8} + \frac{5}{8} = 1$   
So the number in the box should be less than 5. 1, 2, 3 and 4 are smaller than 5. The greatest number that can appear in the box is 4.

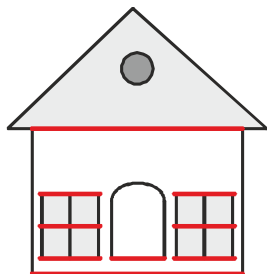
09. (C) Cookies =  $876 - 601 = 275$   
 Pies =  $548 - 390 = 158$
10. (C)  $135 \text{ hours} \div 24 \text{ hr/day} = 5 \text{ days with remainder } 15 \text{ hrs}$   
 $\therefore 135 \text{ hr} = 5 \text{ days } 15 \text{ hrs}$
11. (C)  $65 \text{ kg} = 65000 \text{ g}$  difference  
 $= 65000 \text{ g} - 62450 \text{ g} = 2550 \text{ g} = 2 \text{ kg } 550 \text{ g}$
12. (D) The total value is  
 $5 \times 1 + 3 \times 2 + 2 \times 5 = 5 + 6 + 10$   
 $= 21 \text{ rupees}$



14. (C)  $24 \times 3 = 72$ ,  $24 \times 1 = 27$ ,  
 $72 - 24 = 48$
15. (D) Divide the circle into 6 equal parts  $\frac{2}{6}$  of the circle is shaded.

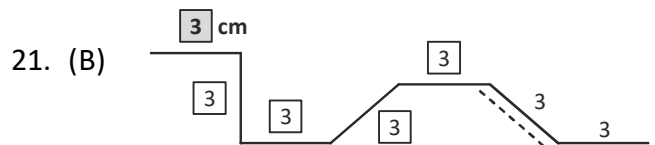
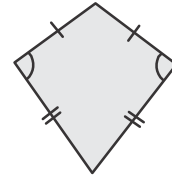


16. (C)  $5 \text{ l} = 5000 \text{ ml}$   
 Number of glasses of water needed to fill up the bucket =  $\frac{5000}{200} = 25$

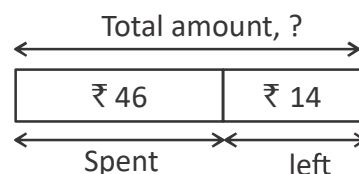


18. (C)  $P + Q = 20 \text{ l}$ ;  $Q + R = 18 \text{ l}$   
 $R = Q + 2 \text{ l}$ ;  $R = P - 2 \text{ l}$   
 $2R = P + Q$ ;  $R = \frac{20 \text{ l}}{2}$   
 $R = 10 \text{ l}$   
 $P = 10 \text{ l} + 2 \text{ l} = 12 \text{ l}$

19. (D) Since Bala works from Monday to Thursday and on Saturday, he works 5 days a week.  
 So,  $9 \text{ h} \times 5 = 45 \text{ h}$
20. (C) In option (C) image does not have parallel lines.



22. (B)  $1 \text{ l} = 1000 \text{ ml}$   
 $1000 \text{ ml} \div 5 = 200 \text{ ml}$   
 Each glass contained  $200 \text{ ml}$  of orange juice.  
 $2 \times 200 \text{ ml} = 400 \text{ ml}$   
 He drank  $400 \text{ ml}$  of orange juice
23. (A) 54 hundreds = 5400  
 $5400 - 3362 = 2038$
24. (B)  $2 \text{ km} - 927 \text{ m} = 1 \text{ km } 1000 \text{ m} - 927 \text{ m}$   
 $= 1 \text{ km } 73 \text{ m}$   
 She still has to run a distance of  $1 \text{ km } 73 \text{ m}$
25. (A) Pen  $\rightarrow \text{₹ } 3$   
 File  $\rightarrow \text{₹ } 3 + \text{₹ } 1 = \text{₹ } 4$   
 Total cost of 6 pens  $\rightarrow 6 \times \text{₹ } 3 = \text{₹ } 18$   
 Total cost of 7 files  $\rightarrow 7 \times \text{₹ } 4 = \text{₹ } 28$   
 Total cost of the pens and files  
 $\rightarrow \text{₹ } 18 + \text{₹ } 28 = \text{₹ } 46$

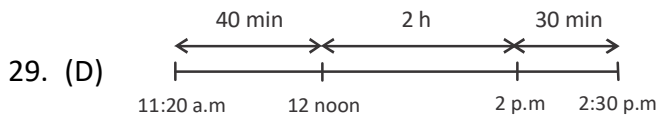


$\text{₹ } 46 + \text{₹ } 14 = \text{₹ } 60$   
 Mr. Tanish had  $\text{₹ } 60$  at first

26. (C)  $\triangle \bigcirc \oplus \star = 6734$

27. (C)  $21 \div 1 = 21$

28. (C)  $800 \times 6 = 4800 \text{ m}$



$$40 \text{ min} + 2 \text{ h} + 30 \text{ min} = 2 \text{ h } 70 \text{ min}$$

$$= 2 \text{ h} + 60 \text{ min} + 10 \text{ min}$$

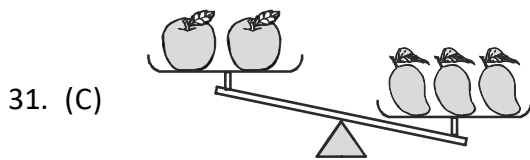
$$= 2 \text{ h} + 1 \text{ h} + 10 \text{ min}$$

$$= 3 \text{ h } 10 \text{ min}$$

He stayed at the library for 3 h 10 min.

30. (C)  $640 \div 4 = 160$

$160 \div 8 = 20$



32. (C)  $\text{Star} \div \text{Diamond} = 3$

$$\frac{\text{Star}}{\text{Diamond}} = 3$$

$$\text{Star} = 3 \times \text{Diamond}$$

33. (C)  $650 \text{ paise} = ₹ 6.50$

$$650 \text{ paise} + ₹ 3.50 = ₹ 6.50 + ₹ 3.50$$

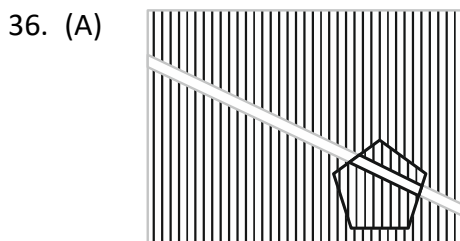
$$= ₹ 10$$

34. (C)  $45 \text{ tens } 16 \text{ ones} = 450 + 16 = 466$

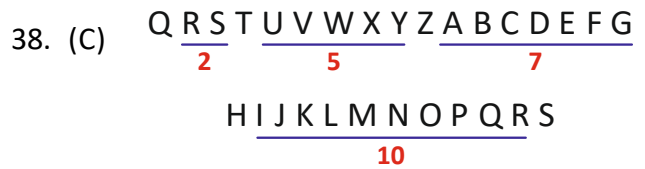
35. (A) Total cubes =  $8 + 8 = 16$

Total volume =  $16 \text{ kg}$

**REASONING**



37. (B) Carrot grown under soil and remaining above soil.

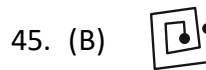
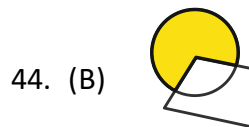


39. (Delete)

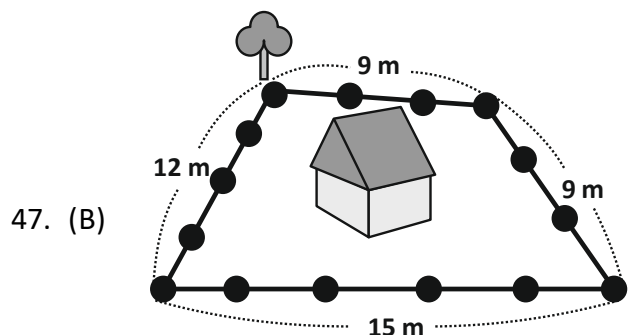
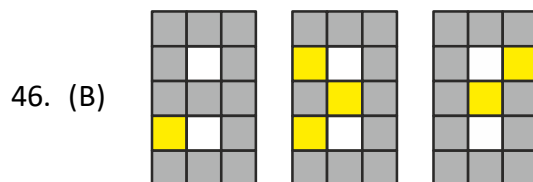
40. (C) In each figure,  
 Number on the 'head' = Sum of the numbers on the 'feet'  $\div 2$   
 Hence, the missing number is 5.



42. (B) Apple 5, Ball 4, Chair 5, Dog 3



**CRITICAL THINKING**



48. (A) Heat and light are both different types of energy. Light energy can be converted into heat energy. A black object absorbs all wavelengths of light and converts them into heat, so the object gets warm.

49. (D) The number of black dots in each grid increases by 1 each time, starting with the top left grid and working to the right, top row then bottom row.

50. (B) Going for a jog three times a week. Among the options, jogging regularly is the most beneficial habit for promoting physical health and well-being.

=====*The End*=====