



Unified International  
Mathematics Olympiad

**UNIFIED INTERNATIONAL MATHEMATICS OLYMPIAD (UPDATED)**

**CLASS - 4**

**Question Paper Code : UM9279**

**KEY**

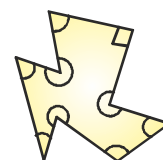
1. C	2. B	3. D	4. C	5. A	6. D	7. D	8. B	9. C	10. A
11. A	12. B	13. D	14. D	15. C	16. A	17. D	18. A	19. C	20. D
21. A	22. B	23. C	24. B	25. B	26. A	27. C	28. D	29. A	30. D
31. D	32. C	33. B	34. D	35. C	36. D	37. B	38. C	39. A	40. Del
41. D	42. B	43. B	44. B	45. A	46. B	47. C	48. B	49. C	50. B





**EXPLANATIONS**

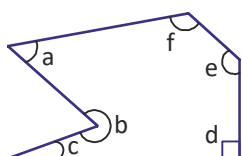
**MATHEMATICS**

01. (C) No. of men in the function hall = 1240  
No. of women in the function hall = 1240 + 158 = 1398  
No. of children in the function hall = 1398 - 640 = 758  
Total no. of people altogether = 1240 + 1398 + 758 = 3396
02. (B) Factors of 48  
1, 2, 3, 4, 6, 8, 12, 16, 24, 48

03. (D) Length of the shelf = 142 cm  
Length of the box = 56 cm  
Length of the box that he could keep in the rest of the shelf = 142 cm - 56 cm = 86 cm
04. (C) Half past nine at night is 9:30 p.m.
05. (A) Product of 42 and 98 = 4116  
No. of 6's in 4116 =  $4116 \div 6 = 686$
06. (D) There are 9 angles, 4 of which are bigger than a right angle (one is a right angle)



07. (D)  $75 \times 3 = 225$  (boys)  
 $550 + 225 + 75 = 850$   
 There were 850 people altogether
08. (B)  is an even number from set X  
 is an odd number from set Y  
 Eg :  $8 - 5 = 3$  (odd number)  
 So, the difference between  and  belongs to set Y
09. (C) option (1) :  $609 \div 3 = 203$  (not 23)  
 option (2) :  $188 + 22 = 210$  (not 200)  
 option (3) :  $4 \times 50 = 200$ ,  $3 \times 60 = 180$ ,  
 $200$  is greater than  $180$   
 option (4) : 1 less than 1000 is 999  
 (not 9999)
10. (A) Time he painted after resting  
 $\rightarrow 1 \text{ h } 55 \text{ min} + 1 \text{ h } 55 \text{ min} = 3 \text{ h } 50 \text{ min}$   
 $1 \text{ h } 55 \text{ min} + 3 \text{ h } 50 \text{ min} = 5 \text{ h } 45 \text{ min}$   
 $= 5 \times 60 + 45 = 300 + 45 = 345 \text{ min}$
11. (A) Given, difference = 2230  
 Smaller number = 890  
 Greater number = difference + smaller number  
 $= 2230 + 890$   
 $= 3120$
12. (B) 10.45 a.m.  $\xrightarrow{+3\text{h}}$  1.45 p.m.  
 Quarter past 2 in the afternoon is 2.15 p.m.  
 The time interval between 1.45 p.m. and 2.15 p.m. is 30 minutes  
 The train was 30 minutes or half an hour late
13. (D) In the figure, d is a right angle. a and c are smaller than a right angle. The other 3 angles are bigger than a right angle.







Statement P: False (The figure has 6 sides and 6 angles)

Statement Q: False (b, e & f are bigger than a right angle each)

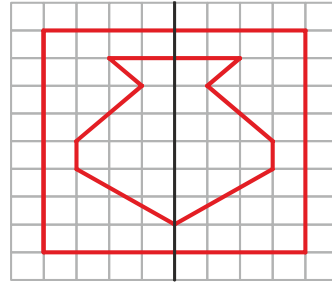
Statement R: True (Only d is a right angle)

Statement S: False (Only angles a and c are acute)

14. (D) Monday and Thursday =  $540 = 540 \div 2 = 270$   
 Friday = 540  
 People who visited on Monday and Friday =  $270 + 540 = 810$
15. (C)  $37 = XXXVII$  which can be made with 10 match sticks  
 $39 = XXXIX \rightarrow 9$  match sticks  
 $27 = XXVII \rightarrow 8$  match sticks  
 $35 = XXXV = 8$  match sticks
16. (A) Multiples of 2 : 2, 4, 6, ..., 28, 30, 32, ...  
 Multiples of 3 : 3, 6, 9, ..., 27, 30, 33, ...  
 Multiples of 5 : 5, 10, 15, ..., 25, 30, 35, ...  
 The first common multiple of 2, 3 and 5 is 30  
 Therefore, the least number of paper clips that can be shared equally among 2, 3 and 5 girls without any remainder is 30
17. (D) Colour 2 parts for each child. Colour  $4 \times 2 = 8$  parts for 4 children.  
 4 parts are not coloured  
 $\frac{4}{12}$  of the cake was left
- 
18. (A) Total perimeter =  $8 + 4 + 8 + 4 + 6 + 4 + X$   
 $= 43 \text{ cm}$   
 $X = 43 - 34 = 9 \text{ cm}$
19. (C) 9<sup>th</sup> December 2021 to 31<sup>st</sup> December 2021 = 23 days  
 1<sup>st</sup> January 2022 to 20<sup>th</sup> January 2022 = 20 days  
 Total 23 days + 20 days = 43 days

20. (D) No. of cards with stack A = 203  
 No. of cards with stack B =  $203 - 120 = 83$   
 No. of cards with stack C =  $2 \times 83 = 166$  cards
21. (A) No. of stamps Jatin had at first =  $654 - 124 = 530$   
 Jatin had 5 times as many stamps as Pranith = 530  
 No. of stamps with Pranith =  $530 \div 5 = 106$  stamps
22. (B) Amount with Teja = ₹ 127  
 Amount with Pavan = ₹  $127 \times 5 = ₹ 635$   
 Cost of a speaker = ₹ 418  
 Cost of an alarm clock = ₹ 27  
 $= ₹ 418 + ₹ 27 = ₹ 445$   
 Amount left with Teja = ₹  $635 - ₹ 445 = ₹ 190$
23. (C) P = 2m = 200 cm  
 Q = 1m 86 cm = 186 cm  
 R = 149 cm  
 S = 2 m 20 cm = 220 cm  
 T = 98 cm  
 $S > P > Q > R > T$
24. (B) 1 kg = 1000 g = 2 cauliflower + 350 g  
 $1000 \text{ g} - 350 \text{ g} = 2 \text{ cauliflower}$   
 $650 \text{ g} = 2 \text{ cauliflowers weight}$
25. (B) Given 7  = 350  
 =  $350 \div 7 = 50$   
 Value of  =  $4 \times 50 = 200$   
 $\Rightarrow 350 - 200 = 150$   
 150 less than 350
26. (A) Total number of pupils  $\rightarrow 5$  units  
 Number of girls:  $\frac{2}{5}$  or 2 units  
 Number of boys:  $\frac{3}{5}$  or 3 units  
 3 units  $\rightarrow 12$  pupils  
 1 unit  $\rightarrow 12 \div 3 = 4$  pupils  
 5 units  $\rightarrow 5 \times 4 = 20$  pupils  
 The total number of pupils in the class was 20

27. (C)



28. (D) Volume of water poured into the cylinder  
 $\rightarrow 3 \times 840 = 2520 \text{ ml}$   
 $125 \text{ ml}$  of water flows out of the cylinder  
 Capacity of the cylinder  $\rightarrow 2520 - 125 = 2395 \text{ ml} = 2\text{l } 395 \text{ ml}$
29. (A) Number of stickers Bunty gave to Sunny  
 $\rightarrow 180 + 20 = 200$   
 Number of stickers Bunty gave to Nitin  
 $\rightarrow 200 + 200 + 200 = 600$   
 $180 + 200 + 600 = 980$   
 Bunty give away 980 stickers altogether
30. (D) Length of each identical rectangle =  $\frac{15 \text{ cm}}{5} = 3 \text{ cm}$   
 $\therefore$  Perimeter of given figure  
 $= (5 \times 3 + 15 + 10 \times 2) \text{ cm}$   
 $= (15 + 15 + 20) \text{ cm} = 50 \text{ cm}$
31. (D)  $126 \div 8 = 15 \text{ R } 6$   
 $\approx 16$
32. (C) Sum of 3 numbers i.e.,  $5229 + 393 + 1476 = 7098$   
 The largest four digit odd number is 9807

Th	H	T	O
9	8	0	7

33. (B)  $\frac{6}{6}$  of the marbles 216  
 $\frac{1}{6}$  of the marbles  $\rightarrow 216 \div 6 = 36$   
 Number of red marbles  $\rightarrow 36$   
 $\frac{4}{4}$  of the marbles  $\rightarrow 216$

$\frac{1}{4}$  of the marbles  $\rightarrow 216 \div 4 = 54$

Number of blue marbles  $\rightarrow 54$

$216 - 36 - 54 = 126$

There were 126 green marbles

34. (D)  $303 + 313 = 616$

35. (C) Cost of 1 doughnut = ₹ 150

Cost of 2 doughnuts = ₹  $150 \times 2 = ₹ 300$

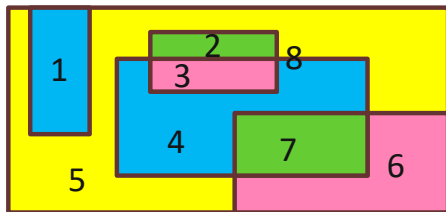
Cost of 3 curry puffs = ₹ 300

Cost of 1 curry puff = ₹  $300 \div 3$

= ₹ 100

### REASONING

36. (D)



37. (B) Overlapping 3 same images.

38. (C) Frog is jumping from one bar to another in order of their height from tallest to shortest.

39. (A) Baby of grasshopper is nymph, in the same way baby of hare is leveret.

40. (Delete)

41. (D)

42. (B) The letters M and E occurred twice in Complement. Out of which only letter E occurs once in Compliment. E is also absent in the word Complaint. Therefore letter E is the right answer.

43. (B) In a queue, the number of people is the sum of the number of people in front and back of a person plus 1 (adding for the person himself). Hence, the second option is correct.

44. (B) England lies in the European continent. But it is given that Europe is known as Africa. Hence the correct answer is option (B).

45. (A)

### CRITICAL THINKING

46. (B)

47. (C)

48. (B) The correct order is :

Child	Cry	Mother	Milk	Smile
2	4	1	3	5

49. (C) Given time is 06 : 23

$23 : 06 \rightarrow 11 : 06 ;$

$20 : 63 \rightarrow 9 : 03 ;$

$20 : 36 \rightarrow 8 : 36$

$13 : 28 \rightarrow 1 : 28$  (1 is not in the question)

06 : 23 next time is 08 : 36 i.e., 20 : 36.

Option (c) is correct.

50. (B) The student doing very badly on the test