



Unified International  
Mathematics Olympiad

**UNIFIED INTERNATIONAL MATHEMATICS OLYMPIAD (UPDATED)**

**CLASS - 3**

**Question Paper Code : UM9269**

**KEY**

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

**EXPLANATIONS**

**MATHEMATICS**

01. (A) Number of stickers Ram has = 1302  
Number of stickers Akhil has  
=  $2934 - 1302 = 1632$   
Number of stickers Dinesh has  
=  $1802 - 1632 = 170$   
Dinesh has 170 stickers.
02. (B)  $493 \times 57 = 28101 - 101 = 28000$

03. (D)  $94 \times 9 = 846$   
 $846 + 94 = 940$   
They spent ₹940 altogether.
04. (C)  $993 - 345 = 648$
05. (A) No of bananas in a box = 220  
No of bags = 3  
No of bananas left =  $220 \div 3$

$$\begin{array}{r} 3 \overline{) 220} \text{ (73)} \\ - 21 \\ \hline 10 \\ - 9 \\ \hline 1 \end{array}$$

Left = 1

06. (D)  $345 \times 4 = 1380$

Value of 1 is 1000

07. (A)  $52 + 48 = 100$

08. (B) No. of Oranges with Devi = 240 g

No. of Apples she bought =  $240 \times 2 = 480$  g

Total mass =  $480 \text{ g} + 240 \text{ g} = 720 \text{ g}$

09. (D) 8934, 8493, 8439, 8394

10. (D)  $6 \star = 2 \text{ pentagon}$

$\text{pentagon} \times 5 = 60$

$\text{pentagon} = 60 \div 5 = 12$

$6 \star = 2 \times 12$

$\star = 24 \div 6 = 4$

11. (C)  $3290 \text{ m} - 742 \text{ m} = 2548 \text{ m} = 2 \text{ km } 548 \text{ m}$

12. (C) Greatest odd number = 19


Smallest even number = 2


$19 \times 2 = 38$

13. (D)  $88 + 3 = 91$

$91 \div 7 = 13$

14. (C)  = 4 parts

 = 3 parts

Hence,  is  $\frac{3}{4}$  of one whole

15. (C) Cost of 6 cupcakes = 90

Cost of 1 cupcake =  $90 \div 6 = ₹15$

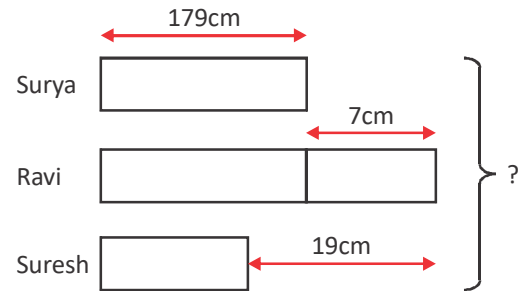
Cost of 12 cupcakes =  $₹15 \times 12 = 180$

No. of dozens of cupcakes she can buy with ₹720 =  $₹720 \div 180 = 4$

4 dozen cupcakes cost

=  $180 + 180 + 180 + 180 = ₹720$

16. (B) Ten minutes past 10



17. (D)

$179 \text{ cm} + 7 \text{ cm} = 186 \text{ cm}$  (Ravi)

$186 \text{ cm} - 19 \text{ cm} = 167 \text{ cm}$  (Suresh)

$179 \text{ cm} + 186 \text{ cm} + 167 \text{ cm} = 532 \text{ cm}$   
= 5 m 32 cm

18. (D) No. of parts = 15

No. of shaded parts = 9

$\frac{9}{15} = \frac{3}{5}$  of the figure is shaded.

19. (C) Mass of 1 cat = 1800 g

Mass of 3 cats  $\rightarrow 3 \times 1800 = 5400 \text{ g}$

3 cats have a mass of  $(100 + 200 + 200) = 500 \text{ g}$  more than 2 dogs

Mass of 2 dogs  $\rightarrow 5400 - 500 = 4900 \text{ g}$

Mass of 1 dog =  $4900 \div 2 = 2450 \text{ g}$

(or) 2 kg 450

20. (D) Option (A) : 1 flat surface

Option (B) : 2 flat surfaces

Option (C) : 5 flat surfaces

Option (D) : 6 flat surfaces (greatest)

21. (D) End time of the fishing trip = 1 p.m.


Start time = 6 a.m.


The duration of fishing trip

= 6 a.m. - 1 p.m. = 7 hours


22. (D)  = 321


 = 217

 + 217 = 321

 = 321 - 217 = 104

104 +  = 217

 = 217 - 104 = 113

 = 113 + 113 + 104 = 330

23. (C) Difference between denominator and numerator =  $11 - 9 = 2$

Numerator is greatest odd number smaller than 10 = 9

$$\text{Fraction} = \frac{9}{11}$$

24. (B) Number of semicircles used for a bus = 3

Number of semicircles used for a lorry = 2

$$\text{Total semicircles} = 3 + 2 = 5$$

25. (C)  $\frac{2}{4} = \frac{P}{16} = \frac{3}{Q}$

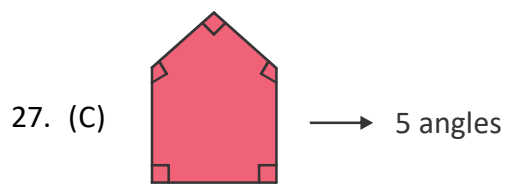
$$\frac{2}{4} = \frac{2 \times 4}{4 \times 4} = \frac{3}{6}$$

$$\frac{2}{4} = \frac{8}{16} = \frac{3}{6}$$

$$\frac{1}{2} = \frac{1}{2} = \frac{1}{2}$$

$$P = 8, Q = 6$$

26. (C) Each mark on the number line has numbers that differ by 5. So, the number that replaces the question mark is  $825 + 5 = 830$



28. (D) Manish's age = 9 years 9 months  
Age of his brother = 2 years 8 months  
Total = 9 years 9 months + 2 years 8 months  
= 11 years 17 months  
= 12 years 5 months

29. (C) Amount with Naina = ₹ 45  
Amount with Vinod = ₹ 45 + ₹ 20 = ₹ 65  
Total amount = ₹ 65 + ₹ 45 = ₹ 110

30. (B) Cost of 1 packet = ₹ 5  
Total amount = ₹ 30

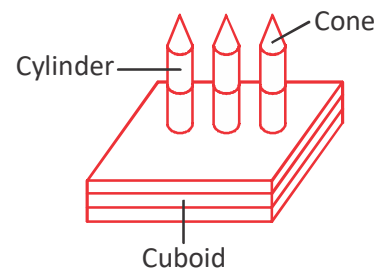
∴ No. of packets that can be bought  
= ₹ 30 ÷ ₹ 5 = 6

In, the offer, 1 packet is given free for every 3 packets

∴ Total no. of packets that can be bought  
= 6 + 2 = 8

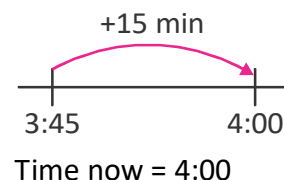
31. (A) Sum of the digits in the tens place and ones place =  $5 + 1 = 6$

The number I am thinking of is 51

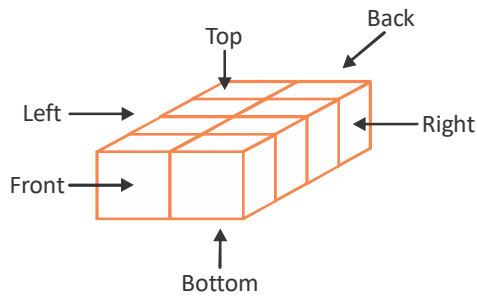


32. (C)

33. (B) Time on the clock is 3:45



34. (D)



Top and bottom =  $8 + 8 = 16$  squares

Left and right =  $4 + 4 = 8$  squares

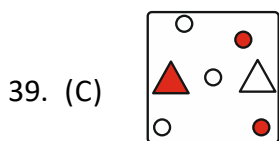
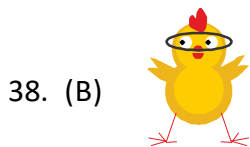
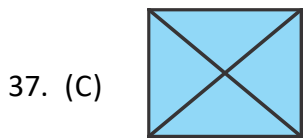
Front and back =  $2 + 2 = 4$  squares

$16 + 8 + 4 = 28$

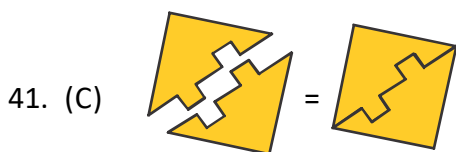
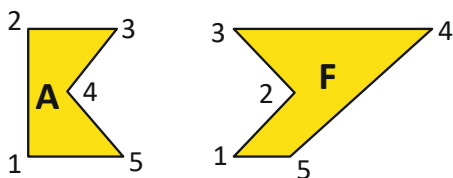
28 squares are painted

35. (A)  $108 - 20 = 88$

**REASONING**

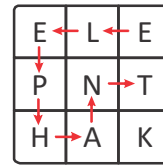


40. (A) A and F



42. (A) Fire is extinguished by a fire extinguisher as dirt is removed by a vacuum cleaner.

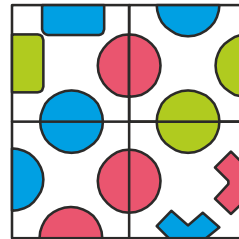
43. (A) Elephant



44. (D)



45. (D)



**CRITICAL THINKING**

46. (B) Aarya > Chinu > Bunny

47. (B) We need 5 moves

(0) S T O P      (1) S T P O

(2) S P T O      (3) P S T O

(4) P S O T      (5) P O S T

48. (C) Since the fruit has 3 vowels and 2 consonants, it has 5 letters.

Out of the given options, only "Apple" and "Olive" has 5 letters, in which only "Olive" has 3 vowels and 2 consonants.

