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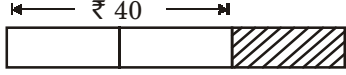
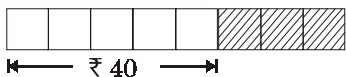
UNIFIED CYBER OLYMPIAD - UC 326

Solutions for class : 6

Mental Ability

- (B) Number of boxes = 3
Number of apples in each box = 8
Total number of apples = $3 \times 8 = 24$
Number of apples given away = 11
 \therefore The number of apples left = $24 - 11 = 13$
- (A) Age of Harsh = x years
Age of Lucky = $(x + 5)$ years
Their total age in 12 years time
= $x + 12 + x + 5 + 12$
= $(2x + 29)$ years
 \therefore Total age = $(2x + 29)$ years
- (B) Jai's savings : Esha's savings = $5 : 6$
Total number of units = $5 + 6 = 11$
 \therefore Jai's savings : Total savings = $5 : 11$
 \therefore The required fractions is $\frac{5}{11}$
- (C) Total length = string A + string B
Given of string A : Total length = $3 : 8$
 \therefore Length of string B = $8 - 3 = 5$
Hence, ratio of string B to string A = $5 : 3$
- (D) $3 \frac{2}{3} = \frac{11 \times 3}{3 \times 3}$
 $= \frac{33}{9} = 33 \times \frac{1}{9}$
 \therefore There are 33 ninths in $3 \frac{2}{3}$.
- (A) Multiples of 3 : 3, 6, 9, (12), 15,
Multiples of 4 : 4, 8 (12), 16, 20,
Multiples of 6 : 6, (12), 18, 24, 30,
The least number of sweets that the packet can have is 12 sweets.

- (C) Assume all were chickens,
 $80 \times 2 = 160$
 $250 - 160 = 90$
there would be a shortage of 90 legs.
The rabbits were counted as chickens.
 $4 - 2 = 2$
 $90 \div 2 = 45$ rabbits and $80 - 45 = 35$ chickens.

- (D) Manik : 
His sister: 

Amount of money Manik had at first

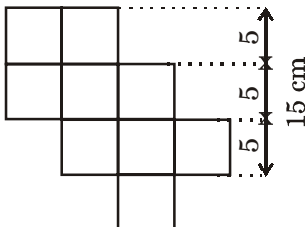
$$= 3 \times \frac{40}{2} = ₹ 60$$

Amount of money his sister had at first

$$= 8 \times \frac{40}{5} = ₹ 64$$

Amount of money they had at first

$$= ₹ (60 + 64) = ₹ 124$$

- (B) 

The sides of the figure is 16.

$$\text{Perimeter} = 16 \times 5 \text{ cm} = 80 \text{ cm}$$

- (D) Given volume = 64 cm^3
Edge of cube = 4 cm
New edge of cube = $2 \times 4 = 8 \text{ cm}$
New volume of the cube
= $8 \times 8 \times 8 = 512 \text{ cm}^3$

11. (D) Soccer + Golf = $\frac{1}{4} \times 40 = 10$

Golf = $10 - 6 = 4$

∴ 4 pupils chose golf as their favourite sport

12. (C) p is the predecessor of q

$\Rightarrow p = q - 1$

∴ $p - q = -1$

13. (B) The hour hand of a clock turns 2-right angles to go from 5 to 11.

14. (A) Height of Ajay and Harsha = 108 cm

Height of Harsha and Vihar = 134 cm

$\Rightarrow \text{Vihar} - \text{Ajay} = (134 - 108) \text{ cm} = 26 \text{ cm}$

∴ Ajay is 26cm shorter than Vihar.

15. (A)

Reasoning

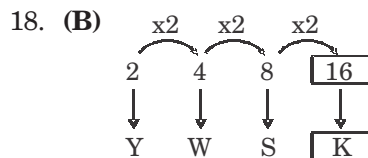
16. (C) $(2 + 3) \times 5 = 25$

$(6 + 1) \times 5 = 35$

$(3 + 6) \times 10 = 90$

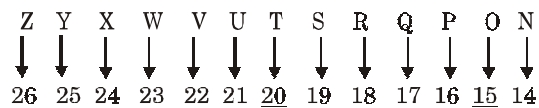
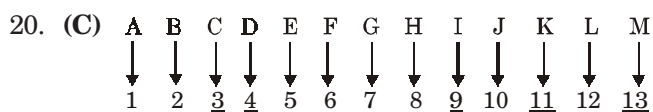
∴ The missing number is 90.

17. (D) Except in option (D), all other figures are divided into four regions.



Each subsequent number is double. The previous one. The letter below each number corresponds to the position of that letter in the alphabet in reverse order.

19. (C) There are 10 circles in the given figure.



TOM → $20 + 15 + 13 = 43$

DICK → $4 + 9 + 3 + 11 = 27$

Similarly, HARRY = $8 + 1 + 18 + 18 + 25 = 70$

∴ The code for HARRY is 70.

21. (D) The small squares in the first pair are rotated by 45° in clock wise direction to obtain the second pair.

22. (A) 881 (6) 236

$8 + 8 + 1 = 17, \quad 2 + 3 + 6 = 11$

$17 - 11 = 6$

917 (?) 113

$9 + 1 + 7 = 17,$

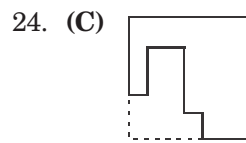
$1 + 1 + 3 = 5$

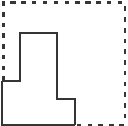
$17 - 5 = 12$

∴ The missing number is 12.

23. (C) 1A 2E 3U 4 5 8 7 D 9 Q 6 J I 7 K O

∴ Hence, three digits are followed by vowels in the given sequence.



∴ The missing piece in the figure is 

25. (D) The shapes in the rows of the grid are being added with a line after every successive step. Hence, the shape in option (D) completes the grid.

26. (B) Except in option (B), all other options have +, ✓, x, 0 and = symbols.

27. (B) $2 \times 7 \times 2 = 28$

$2 \times 3 \times 3 = 18$

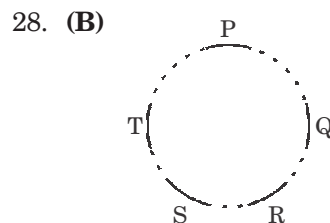
$5 \times 4 \times 2 = 40$

$3 \times \text{img} \times 6 = 36$

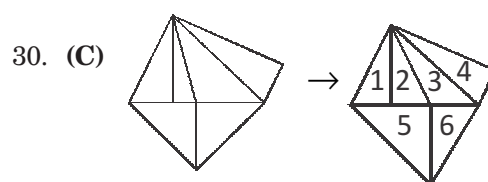
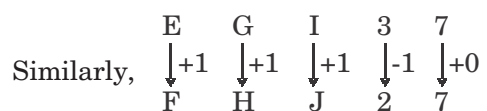
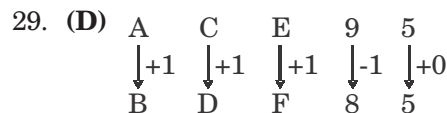
12^2

∴ Image = $\frac{36}{3 \times 6} = 2$

Hence, the required value is 2.



In the above arrangement P is next to Q, R is between. Q and S and T is sitting to the left of P. "S" is sitting between T and R.



individual triangles → 6

Combinations $\rightarrow 1 + 2, 5 + 6, 2 + 3, 1 + 2 + 3$
 $= 4$

\therefore Total number of triangles $= 6 + 4 = 10$

Computers

- | | | | |
|---------|---------|---------|---------|
| 31. (A) | 32. (A) | 33. (C) | 34. (C) |
| 35. (D) | 36. (C) | 37. (B) | 38. (B) |
| 39. (B) | 40. (A) | 41. (C) | 42. (B) |
| 43. (C) | 44. (D) | 45. (B) | |

English

- | | | | |
|---------|---------|------------|---------|
| 46. (B) | 47. (C) | 48. (A, B) | 49. (B) |
| 50. (B) | | | |