



डिजाईन जागरुकता अभियान
DESIGN AWARENESS DRIVE

DAD



On the objectives of

National Design Policy

Govt. Of India

DAD-DESIGNED TO SUPPORT
NATIONAL DESIGN POLICY INDIA

Preparation of a platform for creative design development, design promotion and partnerships across many sectors, states and regions for integrating design with traditional and technological resources.

Global positioning and branding of Indian designs and making "Designed in India" a by-word for quality and utility in conjunction with "Made in India" and "Served in India".

UNITED COUNTRYOUTHS FEDERATION

THE CREATIVE LEADERS-INDIA2018



1. Answer: Option C
Explanation:
Speed = $\left(45 \times \frac{5}{18}\right)$ m/sec = $\left(\frac{25}{2}\right)$ m/sec.
Time = 30 sec.
Let the length of bridge be x metres.
Then, $\frac{130+x}{30} = \frac{25}{2}$
 $\Rightarrow 2(130 + x) = 750$
 $\Rightarrow x = 245$ m.
2. Answer: Option D
Explanation:
Let the speed of two trains be $7x$ and $8x$ km/hr.
Then, $8x = \left(\frac{400}{4}\right) = 100$
 $\Rightarrow x = \left(\frac{100}{8}\right) = 12.5$
 \therefore Speed of first train = (7×12.5) km/hr = 87.5 km/hr.
3. Answer: Option C
Explanation:
Total weight increased = (8×2.5) kg = 20 kg.
Weight of new person = $(65 + 20)$ kg = 85 kg.
4. Answer: Option C
Explanation:
Let daughter's age = A and mother's age = B
Given: $2A+B = 70$ and $A+2B = 95$
Solving B , we will get $B = 40$.
5. Answer: Option C
Explanation:
Clearly, the numbers which have 1 or 9 in the unit's digit, have squares that end in the digit 1. Such numbers from 1 to 70 are 1, 9, 11, 19, 21, 29, 31, 39, 41, 49, 51, 59, 61, 69.
Number of such number = 14
Required percentage = $\left(\frac{14}{70} \times 100\right)\% = 20\%$
6. Answer: C
Explanation:
Cost price = $(225 + 15) = 240$ sell price = 300
Gain = $(60/240) \times 100 = 25\%$
7. Answer: A
Explanation:
Let 1 man's 1 day work = x and 1 woman's 1 day work = y .
Then, $4x + 6y = 1/8$ and $3x + 7y = 1/10$
Solving these two equations, we get:
 $x = 11/400$ and $y = 1/400$
10 woman's 1 day work = $(1/400 \times 10) = 1/40$.
Hence, 10 women will complete the work in 40 days.
8. Answer: Option A
Explanation:
Let the sum invested in Scheme A be Rs. x and that in Scheme B be Rs. $(13900 - X)$
Then, $\left(\frac{x \times 14 \times 2}{100}\right) + \left(\frac{(13900-x) \times 11 \times 2}{100}\right) = 3508$
 $\Rightarrow 28x - 22x = 350800 - (13900 \times 22)$
 $\Rightarrow 6x = 45000$
 $\Rightarrow x = 7500$.
So, sum invested in Scheme B = Rs. $(13900 - 7500) =$ Rs. 6400.
9. Answer: Option A
Explanation:
Amount = Rs. $(30000 + 4347) =$ Rs. 34347.
Let the time be n years.
Then, $30000 \left(1 + \frac{7}{100}\right)^n = 34347$
 $\Rightarrow \left(\frac{107}{100}\right)^n = \frac{34347}{30000} = \frac{11449}{10000} = \left(\frac{107}{100}\right)^2$
 $n = 2$ years.
10. Answer: Option B
Explanation:
External radius = 4 cm,

Internal radius = 3 cm.

$$\text{Volume of iron} = \left(\frac{22}{7} \times [(4)^2 - (3)^2] \times 21\right) \text{ cm}^3 =$$

$$\left(\frac{22}{7} \times 7 \times 1 \times 21\right) \text{ cm}^3 = 462 \text{ cm}^3$$

$$\therefore \text{Weight of iron} = (462 \times 8) \text{ gm} = 3696 \text{ gm} = 3.696 \text{ kg.}$$

11. Answer: Option C

Explanation:

$$\text{A's 1 hour's work} = \frac{1}{4}$$

$$\text{(B + C)'s 1 hour's work} = \frac{1}{3}$$

$$\text{(A + C)'s 1 hour's work} = \frac{1}{2}$$

$$\text{(A + B + C)'s 1 hour's work} = \left(\frac{1}{4} + \frac{1}{3}\right) = \frac{7}{12}$$

$$\text{B's 1 hour's work} = \left(\frac{7}{12} - \frac{1}{2}\right) = \frac{1}{12}$$

B alone will take 12 hours to do the work.

12. Answer: Option D

Explanation:

2 is a prime number. A prime number is a natural number greater than 1 which has no positive divisors other than 1 and itself.

Hence the primer numbers are

2,3,5,7,11,13,17,...

13. Answer: Option B

Explanation:

$$\text{Clearly, } l = (48 - 16)\text{m} = 32 \text{ m,}$$

$$b = (36 - 16)\text{m} = 20 \text{ m, } h = 8 \text{ m.}$$

$$\therefore \text{Volume of the box} = (32 \times 20 \times 8) \text{ m}^3 = 5120 \text{ m}^3.$$

14. Answer: B

Explanation:

One person can select one house out of 3 = 3C_1 ways = 3.

Hence, three persons can select one house out of 3 in $3 \times 3 \times 3 = 9$.

Therefore, probability that all three apply for the same house is $\frac{1}{9}$

15. Answer: Option A

Explanation:

$$\text{Part filled by A in 1 min} = \frac{1}{20}$$

$$\text{Part filled by B in 1 min} = \frac{1}{30}$$

$$\text{Part filled by (A + B) in 1 min} = \left(\frac{1}{20} + \frac{1}{30}\right) = \frac{1}{12}$$

\therefore Both pipes can fill the tank in 12 minutes.

16. Answer: Option D

Explanation:

Siamese is a kind of cat; romaine is a kind of lettuce.

17. Answer: Option A

18. Answer: Option C

Explanation:

Why women are not mentioned in the diagram?

Ans: Rectangle represents men, therefore the area outside the rectangle should be WOMEN.

How to find the answer for the this question?

Ans = [Woman & Urban & Government_Employee]

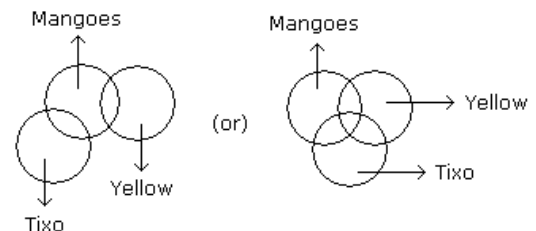
Conditions: Outside the rectangle(women) & Circle(urban) & Square(Govt. employee)

From the given diagram we can find that the value 10 satisfies the above conditions.

Therefore the answer is 10.

19. Answer: Option D

Explanation:



None of the two follows.

20. Answer: Option D

Explanation:

The issue discussed in the statement is nowhere related to increase in unemployment, as the number of vacancies filled in will remain the same. Also, in a working place, it is the performance of the individual that matters and that makes him more or less wanted, and not his educational qualifications. So, neither I nor II holds strong. Besides, the needs of a job are laid down in the desired qualifications for the job. So, recruitment of more qualified people cannot augment productivity. Thus, IV also does not hold strong. However, it is the right of an individual to get the post for which he fulfils the eligibility criteria, whatever be his extra merits. Hence, argument III holds strong.

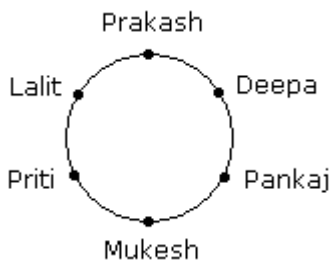
21. Answer: Option B

Explanation:

The third figure in each row comprises of parts which are not common to the first two figures.

22. Answer: Option D

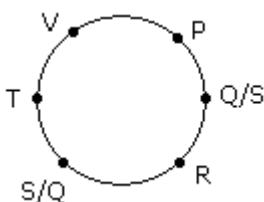
Explanation:



Hence, Lalit is sitting right to Prakash.

23. Answer: Option B

Explanation:



T is sitting just right to the V.

24. Answer: Option C

25. Answer: Option D

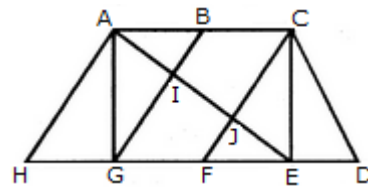
26. Answer: Option B

27. Answer: Option D

28. Answer: Option D

Explanation:

The figure may be labelled as shown.



The simplest triangles are AHG, AIG, AIB, JFE, CJE and CED i.e. 6 in number.

The triangles composed of two components each are ABG, CFE, ACJ and EGI i.e. 4 in number.

The triangles composed of three components each are ACE, AGE and CFD i.e. 3 in number.

There is only one triangle i.e. AHE composed of four components.

Therefore, There are $6 + 4 + 3 + 1 = 14$ triangles in the given figure.

29. Answer: Option C

Explanation:

Let number of girls = x and number of boys = $3x$.

Then, $3x + x = 4x =$ total number of students.

Thus, to find exact value of x , the total number of students must be divisible by 4.

30. Answer: Option C

Explanation:

Let the number of boys and girls participating in sports be $3x$ and $2x$ respectively.

Then, $3x = 15$ or $x = 5$.

So, number of girls participating in sports = $2x = 10$.

Number of students not participating in sports = $60 - (15 + 10) = 35$.

Let number of boys not participating in sports be y .

Then, number of girls not participating in sports = $(35 - y)$.

Therefore $(35 - y) = y + 5 \Leftrightarrow 2y \Leftrightarrow 30 \Leftrightarrow y = 15$.

So, number of girls not participating in sports = $(35 - 15) = 20$.

Hence, total number of girls in the class = $(10 + 20) = 30$.

31. Answer: Option C

Explanation:

The correct order is :

Key	Lock	Door	Room	Switch on
1	3	2	4	5

32. Answer: Option D

Explanation:

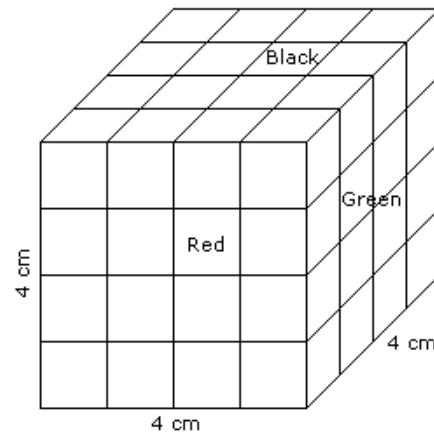
The correct order is:

Infant	Child	Adolescent	Adult	Old
1	5	4	3	2

33. Answer: Option C

Explanation:

One side of the big cube = $\sqrt[3]{64} = 4$ cm.



Number of small cubes having one face green and the other one is either red or black = $8 \times 2 = 16$

34. Answer: Option B

Explanation:

The given series consists of squares of consecutive odd numbers

i.e. $1^2, 3^2, 5^2, 7^2, \dots$

So, missing term = $9^2 = 81$.

35. Answer: Option C

Explanation:

Clearly, $3 + 6 = 9, 9 + 6 = 15, \dots$

So, the series is an A.P. in which $a = 3$ and $d = 6$.

Therefore 21st term = $a + (21 - 1) d = a + 20d = 3 + 20 \times 6 = 123$.

36. Answer: Option B

Explanation:

Look at each segment. In the first segment, the arrows are both pointing to the right. In the second segment, the first arrow is up and the second is down. The third segment repeats the first segment. In the fourth segment, the arrows are up and then down.

- Because this is an alternating series, the two arrows pointing right will be repeated, so option B is the only possible choice.
37. Answer: Option C
Explanation:
There are two alphabetical series here. The first series is with the first letters only: STUVW. The second series involves the remaining letters: CD, EF, GH, IJ, KL.
38. Answer: Option C
39. Answer: Option A
40. Answer: Option B
Explanation:
This is a simple division series; each number is one-half of the previous number.
In other terms to say, the number is divided by 2 successively to get the next result.
 $4/2 = 2$
 $2/2 = 1$
 $1/2 = 1/2$
 $(1/2)/2 = 1/4$
 $(1/4)/2 = 1/8$ and so on.
41. Answer: Option C
42. Answer: Option D
43. Answer: Option B
44. Answer: Option C
45. Answer: Option C
46. Answer: Option B
47. Answer: Option D
48. Answer: Option B
49. Answer: Option A
50. Answer: Option D
51. Answer: Option B
52. Answer: Option D
53. Answer: Option C
54. Answer: Option A
55. Answer: Option B
56. Answer: Option A
57. Answer: Option A
58. Answer: Option B
59. Answer: Option C
60. Answer: Option D
61. Answer: Option B
62. Answer: Option C
Explanation:
Stipulated time provided
63. Answer: Option C
64. Answer: Option B
65. Answer: Option D
66. Answer: Option A
67. Answer: Option B
68. Answer: Option D
69. Answer: Option A
70. Answer: Option C

71. Answer: Option D
72. Answer Option: A
73. Answer Option: A
Explanation:
The unit of measuring liquid is liter. Similarly, the unit of measuring weight is kilogram.
- Fame and television are irrelevant.
 - Bushel is a measure of capacity equivalent to 36.4 liters (8 gallons). It is used to corn, fruits, etc.
 - Land is measured in square yard, acre, hectare, etc.
 - Seismometer measures and plots vibrations caused by an earthquake on a seismograph.
74. Answer: Option D
75. Answer: Option B
76. Answer: Option B
77. Answer: Option D
78. Answer: Option C
79. Answer: Option B
80. Answer: Option C
81. Answer: Option A
82. Answer: Option B
83. Answer: Option A
84. Answer: Option B
85. Answer: Option C
Explanation:
Accommodation is used to refer to buildings or rooms where people live or stay.
86. Answer: Option D
87. Answer: Option A
88. Answer: Option D
89. Answer: Option B
90. Answer: Option B
91. Answer: Option A
92. Answer: Option D
93. Answer: Option A
94. Answer: Option D
95. Answer: Option C
96. Answer: Option A
97. Answer: Option D
98. Answer: Option B
99. Answer: Option C
100. Answer: Option B