



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 D

Explanation:

$$\text{Speed} = \left(72 \times \frac{5}{18}\right) \text{ m/sec} \\ = 20 \text{ m/sec.}$$

$$\text{Time} = 26 \text{ sec.}$$

Let the length of the train be x meters.

$$\text{Then, } \frac{x + 250}{26} = 20$$

$$\Rightarrow x + 250 = 520$$

$$\Rightarrow x = 270.$$

2. Answer: Option D

Explanation:

The 5 consecutive odd numbers whose average is k are (k-4), (k-2), k, (k+2), (k+4)

Again the average of (k-4), (k-2), k, (k+2), (k+4), (k+6), (k+8) is (k+2)

3. Answer: Option C

Explanation:

Let present age of the elder person = x and

present age of the younger person = x - 16

$$(x - 6) = 3(x - 16 - 6)$$

$$\Rightarrow x - 6 = 3x - 66$$

$$\Rightarrow 2x = 60$$

$$\Rightarrow x = \frac{60}{2} = 30$$

4. Answer: Option C

Explanation:

Let the total original sale be Rs. 100. Then, original number of visitors = 100.

New number of visitors = $120/0.75 = 160$.

Increase % = 60 %.

5. Answer: Option D

Explanation:

selling price = 392

gain = 22.5%

$$\text{cost price} = \frac{100 \times 392}{122.5} = \frac{1000 \times 392}{1225}$$

$$= \frac{40 \times 392}{49} = \frac{40 \times 56}{7} = 320$$

$$\text{Profit} = 392 - 320 = 72$$

6. Answer: Option B

Explanation:

If A completes a work in 1 day, B completes the same work in 3 days

Hence, if the difference is 2 days, B can complete the work in 3 days

=> if the difference is 60 days, B can complete the work in 90 days

=> Amount of work B can do in 1 day = $1/90$

Amount of work A can do in 1 day = $3 \times (1/90) = 1/30$

Amount of work A and B can together do in 1 day = $1/90 + 1/30 = 4/90 = 2/45$

=> A and B together can do the work in $45/2$ days

= $22 \frac{1}{2}$ days

7. Answer: Option D

Explanation:

Let P = Rs.100

Simple Interest = Rs. 80 (∵ 80% increase is due to the simple interest)

Rate of interest =

Now let's find out the compound interest of Rs. 14,000 after 3 years at 10%

P = Rs.14000

T = 3 years

R = 10%

$$\text{Amount after 3 years} = P \left(1 + \frac{R}{100}\right)^T =$$

$$1400 \left(1 + \frac{10}{100}\right)^3$$

$$= 14000 \left(\frac{110}{100}\right)^3 = 14000 \left(\frac{11}{10}\right)^3 = 14 \times 11^3 = 18634$$

Compound Interest = Rs.18634 -

Rs.14000 = Rs.4634

8. Answer: A
Explanation:
 1397×1397
 $= (1397)^2$
 $= (1400 - 3)^2$
 $= (1400)^2 + (3)^2 - (2 \times 1400 \times 3)$
 $= 1960000 + 9 - 8400$
 $= 1960009 - 8400$
 $= 1951609.$
9. Answer: C
Explanation:
 Total distance travelled in 12 hours
 $= (35 + 37 + 39 + \dots \text{upto 12 terms})$
 This is an A.P with first term, $a = 35$, number of terms, $n = 12$, $d = 2$.
 Required distance $= \frac{12}{2} [2 \times 35 + \{12 - 1\} \times 2]$
 $= 6(70 + 23)$
 $= 552 \text{ kms.}$
10. Answer: Option C
Explanation:
 $\frac{1}{K} + \frac{1}{L} + \frac{1}{M} = \frac{1}{8}$ (Given)
 Also given that $K = 2L$ and $L = 2M$
 $\Rightarrow \frac{1}{2L} + \frac{1}{L} + \frac{2}{L} = \frac{1}{8}$
 $\Rightarrow (1 + 2 + 4)/2L = 1/8$
 $\Rightarrow 2L/7 = 8$
 $\Rightarrow L = 28 \text{ hours.}$
11. Answer: Option A
Explanation:
 $P = \text{Rs.}900$
 $SI = \text{Rs.}81$
 $T = ?$
 $R = 4.5\%$
 $T = \frac{100 \times SI}{PR} = \frac{100 \times 81}{900 \times 4.5} = 2 \text{ years}$
12. Answer: Option A
Explanation:
 The word 'LOGARITHMS' has 10 different letters.
- Hence, the number of 3-letter words (with or without meaning) formed by using these letters
 $= 10P_3$
 $= 10 \times 9 \times 8$
 $= 720$
13. Answer: Option C
Explanation:
 Let required time be t seconds.
 $240 : (240 + 650) = 24 : t$
 $\Rightarrow 240 : 890 = 24 : t$
 $\Rightarrow t = \frac{890}{10} = 89$
14. Answer: Option D
Explanation:
 Speed $= 45 \text{ km/hr} = 45 \times \frac{5}{18} = \frac{25}{2} \text{ m/s}$
 Distance travelled = Length of the train + Length of the platform
 $= 360 + 140 = 500 \text{ metre}$
 Time taken to cross the platform
 $= \frac{500}{(\frac{25}{2})} = 40 \text{ seconds}$
15. Answer: Option B
Explanation:
 Let the thickness of the bottom be x cm.
 Then, $[(330 - 10) \times (260 - 10) \times (110 - x)] = 8000 \times 1000$
 $\Rightarrow 320 \times 250 \times (110 - x) = 8000 \times 1000$
 $\Rightarrow (110 - x) = \frac{8000 \times 1000}{320 \times 250} = 100$
 $\Rightarrow x = 10 \text{ cm} = 1 \text{ dm.}$
16. Answer: Option D
Explanation:
 As Students read in College similarly Patients are treated in Hospital.
17. Answer: Option C
Explanation:
 As effect of Ice is coldness similarly the effect of Earth is gravitation.
18. Answer: Option B

Explanation:

This is an alternating number subtraction series. First, 2 is subtracted, then 4, then 2, and so on.

19. Answer: Option C

Explanation:

C @ B → C is the sister of B

B % F → B is the son of F

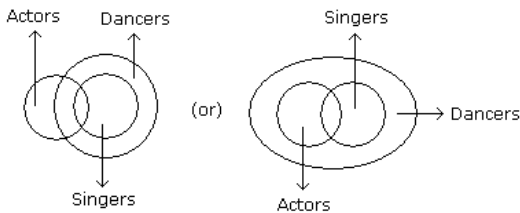
Hence, → C is the daughter of F

F % E → F is the son of E

Hence, → C is the granddaughter of E.

20. Answer: Option A

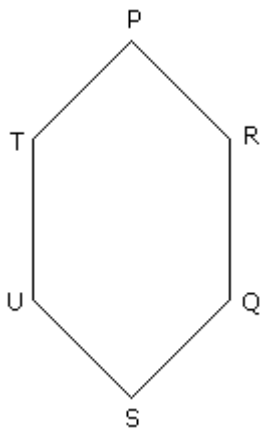
Explanation:



Only (1) follows.

21. Answer: Option D

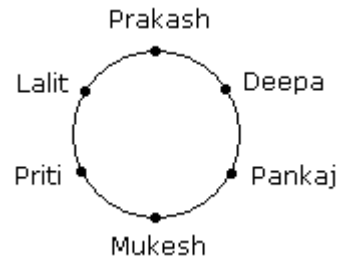
Explanation:



S is sitting opposite to P.

22. Answer: Option D

Explanation:

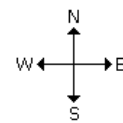


Hence, Deepa is sitting just to Pankaj.

23. Answer: Option C

Explanation:

- → Fiat
- → Bedford
- → Maruti
- → Ambassador
- → Fargo
- → Cadillac
- → Mercedes



Fargo and Mercedes are on both the sides of cadillac car.

24. Answer: Option C

25. Answer: Option C

Explanation:

There are 3 types of shadings in the triangles, 3 types of legs, 3 positions of circles, each of which is used only once in a single row. The circle is shaded in alternate figures.

26. Answer: Option C

Explanation:

All except Microphone are instruments based on theories and principles of light.

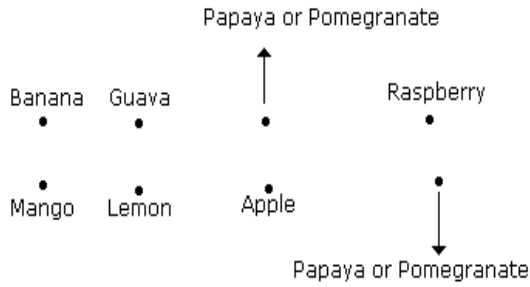
27. Answer: Option C

Explanation:

All except Earth denote Roman or Greek gods and goddesses.

28. Answer: Option B

Explanation:



29. Answer: Option C

Explanation:

Let money with Ken = x. Then, money with Mac = x + £ 3.
 Now, 3x = (x + x + £ 3) + £ 2 ⇔ x = £ 5.
 Therefore Total money with Mac and Ken = 2x + £ 3 = £ 13.

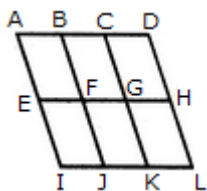
30. Answer: Option B

31. Answer: Option B

32. Answer: Option B

Explanation:

The figure may be labelled as shown.



The simplest ||gms are ABFE, BCGF, CDHG, EFJI, FGKJ and GHLK. These are 6 in number.

The parallelograms composed of two components each are ACGE, BDHF, EGKI, FHLJ, ABJI, BCKJ and CDLK. Thus, there are 7 such parallelograms.

The parallelograms composed of three components each are ADHE and EHLI i.e. 2 in number.

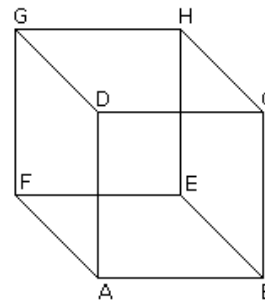
The parallelograms composed of four components each are ACKI and BDLJ i.e. 2 in number

There is only one parallelogram composed of six components, namely ADLI.

Thus, there are 6 + 7 + 2 + 2 + 1 = 18 parallelograms in the figure.

33. Answer: Option A

Explanation:



- ABEF → Red
- DCHG → Black
- ABCD → Green
- EFGH → Blue
- AFGD → White
- BCHE → Brown

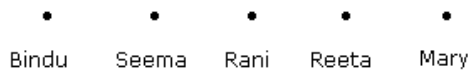
34. Answer: Option D

35. Answer: Option A

Explanation:

The pattern is + 2, + 4, + 8, + 16,.....
 So, missing term = 28 + 8 = 36.

36. Answer: Option C

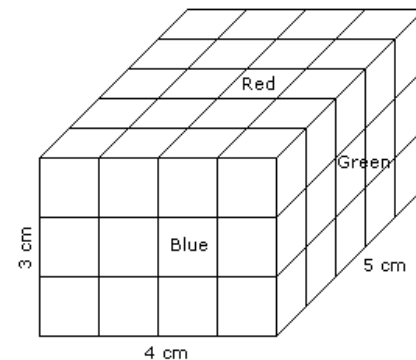


Explanation:

Mary is sitting immediate right to Reeta.

37. Answer: Option D

Explanation:



$$\begin{aligned} \text{Required number of small cubes} &= (5 - 2) \times (4 - 2) \times (3 - 2) \\ &= 3 \times 2 \times 1 \\ &= 6 \end{aligned}$$

38. Answer: Option B

39. Answer: Option B
40. Answer: Option D
41. Answer: Option A
Explanation:
If you listen to
42. Answer: Option C
Explanation:
to pass time thus
43. Answer: Option B
Explanation:
why I could not see him the previous day
44. Answer: Option A
Explanation:
'I have been there'
45. Answer: Option C
46. Answer: Option A
47. Answer: Option A
48. Answer: Option A
49. Answer: Option D
50. Answer: Option B
51. Answer: Option C
52. Answer: Option D
53. Answer: Option B
54. Answer: Option A
55. Answer: Option D
56. Answer: Option B
57. Answer: Option C
58. Answer: Option C
59. Answer: Option C
60. Answer: Option B
61. Answer: Option C
62. Answer: Option A
63. Answer: Option D
64. Answer: Option D
65. Answer: Option C
66. Answer: Option A
67. Answer: Option A
68. Answer: Option D
69. Answer: Option D
70. Answer: Option D
71. Answer: Option B
72. Answer: Option B
73. Answer: Option C
74. Answer: Option B
75. Answer: Option C
76. Answer: Option D

77. Answer: Option B

99. Answer: Option A

78. Answer: Option C

100. Answer: Option D

79. Answer: Option A

80. Answer: Option B

81. Answer: Option B

82. Answer: Option C

83. Answer: Option A

84. Answer: Option B

85. Answer: Option B

86. Answer: Option B

87. Answer: Option C

88. Answer: Option D

89. Answer: Option A

90. Answer: Option C

91. Answer: Option A

92. Answer: Option C

93. Answer: Option A

94. Answer: Option B

95. Answer: Option D

96. Answer: Option A

97. Answer: Option A

98. Answer: Option A