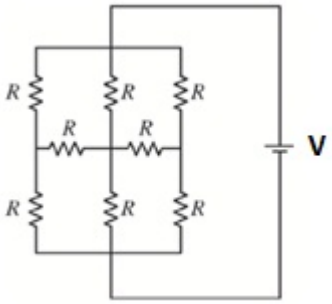
Solutions for Railways ALP CBT 2: Test 6

1 - C
Explanation:Assuming x as C.P. and y as M.P. and Discount % = d
y - x = 2(0.6y - x)
y - x= 1.2y - 2x
x = 0.2y
y = 5x
$MP\left(1-\frac{d}{100}\right)=CP$
$5x\left(1-\frac{d}{100}\right)=x$
$5-\frac{d}{20}=1\Rightarrow d=80\%$
Discount % = d = 80%

2 - C
Explanation:Given the egg is placed vertical to horizontal plane the front view and side view will be same and it might be conical, oval or elliptical etc. the top view always be circle. That's why the egg boxes are made impression of semi spheres.

3 - B
Explanation:Nodes the horizontal resistors connect to each have the same voltage. It doesn't matter if the horizontal resistors are there or not so they can be removed without changing the solution.



Effective resistance in each branches 2R and such three series combinations are parallel thus effective resistance is
$R_{eff}=\frac{2R}{3}$
Now,
$I=\frac{V}{Reff}$
$I=\frac{3V}{2R}$

4 - D
Explanation:Heat produced per second = heat absorbed by ice
Heat produced per second = Latent heat of fusion × mass;
Heat produced per second in calories = $\frac{V^2}{R(4.2)}$
Heat produced = $\frac{210^2}{10\times4.2}$ = 1050 calories
1050 = Latent heat of fusion × mass;
1050 = 80 x (m)
m = $\frac{1050}{80}$ =13.12 gm/sec

5 - A
Explanation:When the receding lines are drawn to half size scale then the oblique projection is cabinet projection. When the receding lines are drawn to full size scale then the oblique projection is cavalier projection.

6 - C
Explanation:Since height is same for both balls, their velocities on reaching the ground will be same
So, K.E. ∝ mass
$\frac{KE_1}{KE_2}=\frac{m_1}{m_2}$
$\frac{KE_1}{KE_2}=\frac{8}{32}=\frac{1}{4}$

7 - B
Explanation:Elastic potential energy of spring = $\frac{1}{2}kx^2$
Change in energy = $\frac{1}{2}\times16(0.36^2-0.25^2)$
Change in energy = 0.5368 J

8 - B
Explanation:Long-dashed dotted lines are used for indication of surfaces for which a special requirement applies.

9 - D
Explanation:T – squares are made up of hard wood, plastics, etc. It consists of two parts; stock and blade. The stock slides on the drawing board and the horizontal lines are drawn from the working edge on the side of the blade. The angle between the stock and the blade is 90°.

10 - B
Explanation:Top view gives the length of line and distance from the xy reference line which is the perpendicular distance from the line to vertical plane. It is given in question as 8 inches.

11 - C
Explanation:Cooling towers, water channels use Hyperbolic curves as their design. Arches, Bridges, sound reflectors, light reflectors etc use parabolic curves. Arches, bridges, dams, monuments, man-holes, glands and stuffing boxes etc use elliptical curves.

12 - C
Explanation:According to first law of thermodynamics
$Q=\Delta U+W$
$\Delta U=Q-W$
$\Delta U=4\times10^3\times4.2-800$
ΔU =16000 J=16 kJ

13 - B
Explanation:The size of the designation A3 in mm is 420 x 297. The designations A0, A1, A2, A4 and A5 have sizes 1189 x 841 mm, 841 x 594 mm, 594 x 420 mm, 297 x 210 mm and 210 x 148 mm respectively. Standardizing helps in uniformity of the products all over the nation and will avoid local variations.

14 - B
Explanation:Let the distance be 3s.
Time taken to travel first one third distance(s) = $\frac{s}{10}$ hours
Time taken to travel second one third distance(s) = $\frac{s}{20}$ hours
Time taken to travel third one third distance(s) = $\frac{s}{60}$ hours
Total time taken= $\frac{s}{10} + \frac{s}{20} + \frac{s}{60} = \frac{s}{6}$ hours
Average speed= $\frac{total\ distance}{total\ time}$
Average speed= $\frac{3s}{\frac{s}{6}}$ =18 km/hr

15 - C
Explanation:If a line is perpendicular to the vertical plane then its vertical trace coincides with its front view which is a point. It has no horizontal trace because the line is parallel to horizontal plane the line will not touch the horizontal plane.

16 - D
Explanation:Ministry of Heavy Industries and Public Enterprises has recently launched the second phase of "FAME India" scheme. FAME India Scheme stands for Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles. FAME India was launched in 2015 under National Electric Mobility Mission (NEMM). It aims at promoting eco-friendly vehicles in the country.

17 - B
Explanation:Total honey in the mixture =
$\frac{5}{9} \times 3 + \frac{4}{7} \times 2 = \frac{5}{3} + \frac{8}{7} = \frac{59}{21}$
Total water in the mixture =
$\frac{4}{9} \times 3 + \frac{3}{7} \times 2 = \frac{4}{3} + \frac{6}{7} = \frac{46}{21}$
The ratio of water and honey in the resultant solution ratio = 46: 59

18 - C
Explanation:According to census 2011 UP has the largest chunk of the total SC population i.e. around 19,680,633 followed by West Bengal with 10,459,966. While Punjab has the largest share of dalits in its population at 31.9%. Himachal Pradesh and West Bengal follow Punjab with 25.2% and 23.5%. In Tamil Nadu, dalits account for about 18% of the population.

19 - B
Explanation:The Indian Space Research Organization (ISRO) is planning to celebrate Vikram Sarabhai centenary celebration starting in August 2019. As a part of its celebration, ISRO has planned to telecast a dedicated ISRO TV channel to showcase ISRO's space applications, developments and science issues. It aims at targeting youngsters and the people in remote areas in their language.

20 - B
Explanation:Austrian capital Vienna was ranked as world's most liveable city among 140 major cities in 2018 Global Liveability Index released by Economist Intelligence Unit (EIU). It is first time that European city has topped rankings of EIU annual survey.

21 - B
Explanation:In a cross belt drive, both the pulleys rotate in opposite directions. If sum of the radii of the two pulleys be constant, then length of the belt required will also remain constant, provided the distance between centres of the pulleys remain unchanged.

22 - A
Explanation:Kinetic energy is same
According to the formula Kinetic energy is E = $\frac{p^2}{2m}$
Given $p_1 = p_2$
So,
$\frac{p_1^2}{2m_1} = 8 \times \frac{p_2^2}{2m_2}$
$\frac{m_1}{m_2} = \frac{1}{8} \times \frac{p_1^2}{p_2^2}$
$\frac{m_1}{m_2} = \frac{1}{8}$

23 - C
Explanation: $2ycos\theta - xsin\theta = 0$
$2ycos\theta = xsin\theta$.... (I)
$2xsec\theta - ycosec\theta = 3$
$2xsin\theta - ycos\theta = 3sin\theta cos\theta$
From (I)
$4ycos\theta - ycos\theta = 3sin\theta cos\theta$
$3ycos\theta = 3sin\theta cos\theta$
$y = sin\theta$
$x = 2cos\theta$
$x^2 + 4y^2 = 4cos^2\theta + 4sin^2\theta = 4$

24 - C
Explanation:One octal digit makes 3 digits (because 8 = 2^3).
So, 17 make 51 binary digits.
But the first digit is 3, 3 in binary system is 011.
The first zero is useless.
So, the number of digits = 51 -1 = 50

25 - D

Explanation:Expectation of normal rains, boost in private and government expenditure along with green shoots emerging in investment spending have prompted India Ratings and Research to revise its FY19 GDP growth forecast to 7.4% from 7.1% earlier.

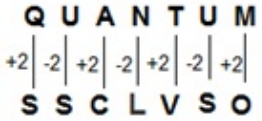
26 - B
Explanation:Data mining is the process of sorting through large data sets to identify patterns and establish relationships to solve problems through data analysis.

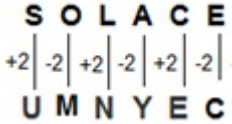
27 - A
Explanation:Lawrence Haddad and Dr. David Nabarro have recently been awarded with World Food Prize 2018 for their individual but complementary global leadership in elevating maternal and child under-nutrition within food security. The World Food Prize is most prominent global award for individuals whose breakthrough achievements alleviate hunger and promote global food security.

28 - C
Explanation:Sujata Massey has authored the book: 'A Murder on Malabar Hill'; a prolific writer since her early days. Sujata Massey is a British-American mystery writer and historical fiction novelist best known for her Rei Shimura mystery series. Massey's writing revolves around the realities of our society.

29 - A
Explanation:

The correct answer figure is (A).

30 - D
Explanation:


Similarly,


31 - B
Explanation:"Mu Hero Mu Odisha" is a program launched by Odisha state govt. to identify and recognize young achievers of the state. The program aims to recognize exemplary works by Odiya boys and girls towards social transformation.

32 - B
Explanation:The Ministry of Road Transport & Highways has roped in Akshay Kumar as a brand ambassador for its road safety awareness campaign and released three videos featuring the Bollywood actor as traffic police inspector cracking down on violators.

33 - D
Explanation:In a second class lever, the fulcrum is on one end of the lever, the effort is on the other end, and the load is between the fulcrum and the effort. Examples of second class levers are bottle openers, nut crackers, the cutting arm on a paper cutter, and a wheelbarrow.

34 - B
Explanation:The Appointments Committee of Cabinet (ACC) has appointed missile scientist Dr. G Satheesh Reddy as Secretary of Department of Defence Research & Development (DDR&D) and Chairman of Defence Research and Development Organisation (DRDO). Prior to this appointment he was scientific adviser to defence minister-cum-DRDO chief.

35 - C
Explanation:India has recently conducted its first ever military exercise – "Elang Shakti" with Malaysia. Indian Air Force and Royal Malaysian Air Force have performed the exercise at Subang Air Base in Malaysia. The exercise seeks to deepen the military and defence ties between the two countries.

36 - C
Explanation:Reliance Industries Ltd is the country's most valued firm with a market cap of Rs 5,33,818.72 Cr. followed by HDFC Bank, TCS, ITC in top four list. HDFC Bank has surpassed Tata Consultancy Services (TCS) to become the country's second most valued firm in terms of market valuation.

37 - C
Explanation:An application software (app or application for short) is computer software designed to perform a group of coordinated functions, tasks, or activities for the benefit of the user. Example of application software such as database programs, word processors and spreadsheets.

38 - C
Explanation:When adding dimensions to an auxiliary view it will be necessary to use the aligned dimension tool.

39 - A
Explanation:International Buddhist Conclave (IBC) 2018 had recently observed in New Delhi, India. The Conclave was organized by Ministry of Tourism in collaboration

with State Governments of Maharashtra, Bihar and Uttar Pradesh. Japan is Partner Country for IBC 2018.

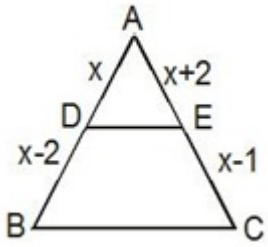
40 - B
Explanation:The company has committed around Rs 250 crore in this business. Bengaluru One97 Communications, the parent entity of Paytm has recently announced the launch of its AI Cloud computing platform “Paytm AI Cloud for India” for developers, startups and enterprises.

41 - C
Explanation:Indian Football team ranked 96th in FIFA World Rankings 2018. At the top, world champions France have moved up six spots to be ranked first while Belgium is second. Brazil, Croatia and Uruguay complete the top five positions.

42 - C
Explanation:Minimum Value of $sin^2 45^\circ + cos^4 45^\circ$ will be at $\theta = 45^\circ$ degree
$sin 45^\circ = \frac{1}{\sqrt{2}}, cos 45^\circ = \frac{1}{\sqrt{2}}$
Required minimum value
$= sin^2 45^\circ + cos^4 45^\circ$
$= \left(\frac{1}{\sqrt{2}}\right)^2 + \left(\frac{1}{\sqrt{2}}\right)^4$
$= \frac{1}{2} + \frac{1}{4}$
$= \frac{3}{4}$

43 - D
Explanation:The microprocessor of a computer cannot operate on any information if that information is not in its main storage.

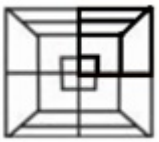
44 - D
Explanation:Let r% be the annual rate.
Let the amount at the end of one year be A.
$\frac{A \times r}{100} = 6250$
also $\frac{(A+6250)r}{100} = 7812.50$
$\frac{6250r}{100} = 7812.50 - 6250$
$r = \frac{1}{4} \times 100 = 25$

45 - B


Explanation:
$DE \parallel BC \Rightarrow \Delta ADE \approx \Delta ABC$
$\frac{AD}{AB} = \frac{AE}{AC}$
$\frac{x}{x+x-2} = \frac{x+2}{x+2+x-1}$
$\frac{x}{2x-2} = \frac{x+2}{2x+1}$
$2x^2 + x = 2x^2 + 4x - 2x - 4$
x=4

46 - B
Explanation:Co-primes means they don't have any common factor other than 1.
So, the numbers must be 1 and 8.
Sum = 1 + 8 = 9

47 - D
Explanation:Given is a plane which is inclined but cutting all the generators so it will be ellipse. Cutting of all generators gives us information that the cross-section will be closed curve and not parabola or hyperbola. Circle will form only if plane is parallel to base.

48 - D

Explanation:
The correct answer figure is (D).

49 - B
Explanation:Since OC = OD
then
$\angle ODC = \angle OCD$
In ΔOCD ,
$\angle ODC + \angle OCD + 70^\circ = 180^\circ$
$2\angle OCD = 110^\circ$
$\angle OCD = 55^\circ$

50 - D
Explanation: $tan^2\theta + cot^2\theta = x$
$\frac{sin^2\theta}{cos^2\theta} + \frac{cos^2\theta}{sin^2\theta} = x$
$\frac{sin^4\theta + cos^4\theta}{cos^2\theta . sin^2\theta} = x$
$\frac{(sin^2\theta + cos^2\theta)^2 - 2cos^2\theta sin^2\theta}{cos^2\theta . sin^2\theta} = x$
$1 - 2cos^2\theta sin^2\theta = x cos^2\theta . sin^2\theta$
$1 = (2 + x) cos^2\theta . sin^2\theta$
$\frac{1}{cos^2\theta . sin^2\theta} = 2 + x$
$\frac{1}{cos\theta . sin\theta} = \sqrt{2 + x}$

51 - D
Explanation: $= \frac{(0.3333)}{(0.2222)} \times \frac{(0.1667)(0.8333)}{(0.6667)(0.1250)}$
$= \frac{3333}{2222} \times \frac{\frac{1}{6} \times \frac{5}{6}}{\frac{2}{3} \times \frac{125}{1000}}$
$= \left(\frac{3}{2} \times \frac{1}{6} \times \frac{5}{6} \times \frac{3}{2} \times 8\right)$
$= \frac{5}{2}$
=2.50

52 - B
Explanation:Let M faces meet at a vertex. If we chop off this corner with a neat cut, we lose a vertex but gain M of them $\Delta V = M - 1.$
We also introduce M new edges without losing an edge.
$\Delta E = M$
And we have introduced a new face.
$\Delta F = 1$
$\Delta V + \Delta F = \Delta E.$
Note: To obtain the relation between the number of faces, vertices and edges we consider a simple solid (a tetrahedron) F = 4, V = 4, E = 6.
F + V = E + 2. This is called Euler's Theorem.
$\rightarrow \ F_1 + V_1 = E_1 + 2$(before cutting) and
$F_2 + V_2 = E_2 + 2$(after cutting)
Hence $\Delta F + \Delta V = \Delta E.$

53 - D
Explanation:The ratio in which Priya, Qury and Rani share the profits is
The ratio of their profits = (30,000 x 12) : (40000 x 6 + 30000 x 3) : (50000 x 2 + 25000 x 8)
The ratio of their profits = the ratio of their investments i.e.,
3,60,000 : 3,30,000 : 3,00,000 = 12 : 11 : 10
∴ Priya makes $\frac{12}{12+11+10} = \frac{12}{33}$ of the total profit, while Rani earns $\frac{10}{33}$ of total profit.
∴ Priya earning exceed Rani by $\frac{2}{33}$ x 1,98,000
= Rs.12,000.

54 - A
Explanation:Let initially be there are 1000 cars then.
First increment = 40% i.e. 1400 cars
Second decrement to 70% = 980 cars
Now, Increment by 30% = $980 + \frac{30}{100} \times 980 = 1274$
Now, 10% cars are sold = 1274–127.4=1146.6
Thus, required % = $\frac{1146.6-1000}{1000} \times 100 = 14.66\%$
option (A) is correct.

55 - A
Explanation:Here friction is not considered. Gravitational field is conservative field hence work done is independent of path.
Object is moved to the height $h = s\ sin\theta$, s is the length of inclined plane
Thus work done = change in potential energy
Work = mgh
Work= $mg(s\ sin\theta)$(f = mg(4kN))
on substituting the values in above equation
Work = $4 \times 20 \times sin30^{\circ}$= 40 kJ

56 - B
Explanation:Mean = $\frac{1\times5+2\times4+3\times6+4\times f}{5+4+6+f}$
$3 = \frac{5+8+18+4f}{15+f}$
45+3f=31+4f
f=45-31
f=14

57 - C
Explanation:Options (A), (B) and (D) show the relation between a professional and the tools of his trade. Option (C) differs in this aspect since a crown is a symbol of authority or status rather than an implement used by a king to perform his job.

58 - B
Explanation:Let the number of officer be n
19750 x 600 = 32000n +18000(600-n)
19750 x 600-18000 x 600 = 32000n - 18000n
1750 x 600 = 14000n
$n = \frac{1750\times600}{14000} = 75$

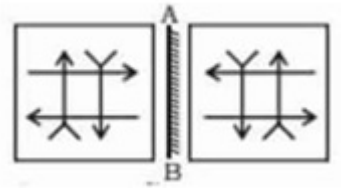
59 - C
Explanation:According to Question-
(Anil+10) = 2(Bipin -10)
Anil +10 = 2Bipin -20
Anil -2Bipin = -30 _____(I)
Anil = Bipin + 9
Anil -Bipin = 9 _____ (II)
From equation (I) and (II),
Bipin = 39 years

60 - B
Explanation:Somnath Chatterjee was the former Lok Sabha speaker who has recently passed away. A barrister by profession, Chatterjee was the first and the last communist leader to be elected as Speaker of the Lok Sabha in 2004, a position that he held till 2009.

61 - C
Explanation:Clearly neither of the conclusions follows. We can't call this "a national epidemic". The statement only talks about children in urban areas. Secondly, the rate is rising. There is no fact presented regarding the cause of this. Hence, neither of the conclusions follows.

62 - B
Explanation:India will launch its second lunar mission "Chandrayaan-2" on January 3 in 2019 to land on the moon with a lander and rover. Chandrayaan-2, which will be launched onboard the Geosynchronous Satellite Launch Vehicle MK-3 and will orbit around the moon and study its lunar conditions to collect data on its topography, mineralogy and exosphere.

63 - D



Explanation:
The correct answer figure is (D).

64 - A
Explanation:S I = $\frac{P \times r \times t}{100}$
$= \frac{68400 \times 18 \times 4}{100}$ = Rs. 49248
The amount at the end of 4 years = P + SI = 68400 + 49248 = Rs.117648

65 - B
Explanation:Argument I is vague as it does not state directly as to which diseases are talked about in the argument. Moreover, from the argument it is not clear whether the risk is reduced significantly or only marginally. Given this ambiguity, banning drinks would be an extreme step. Argument II is not strong; freedom can be compromised a little if it calls for the greater good. Argument III is strong as it backs the argument with a valid reason. Since there is no evidence that aerated drinks cause any harm, it is not justified to ban them. Argument IV is a weak argument; just because something is practiced somewhere else doesn't make it a good reason to practice the same thing in our country too. Only III is strong, so option (B) is the correct answer.

66 - B

Explanation:
The correct answer figure is (B)

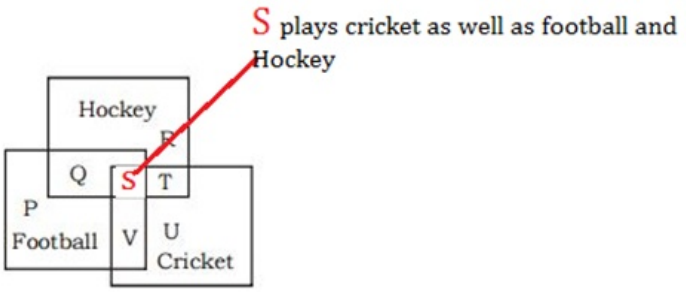
67 - A
Explanation:The external division case will use the formula
$x = \frac{mx_2 - nx_1}{(m-n)}$
$y = \frac{my_2 - ny_1}{(m-n)}$
where m:n is 3 : 2
$x = \frac{3 \times 8 - 2 \times 3}{3-2} = 18$
$y = \frac{3 \times 6 - 2 \times 5}{3-2}$ =8
Points=(18, 8)

68 - D
Explanation:Tax paid = $2000000 \times \frac{20}{100}$ = Rs. 400000
After giving 20% as tax to government, he is left with Rs. 2000000 – 400000
= Rs. 16,00,000.

	Sum Invested	Interest Earned	Tax on Interest	
Year 1	1600000	1600000 × 0.2 = 320000	320000 × 0.2 = 64000	
Year 2	1600000 + 320000 - 64000 =1856000	1856000 × 0.2 = 371200	371200 × 0.2 = 74240	
Year 3	1856000 + 371200- 74240=2152960	2152960 × 0.2 = 430592	430592 × 0.2 = 86118.4	

So, amount in his account after 3 years = (2152960 + 430592 - 86118.4)
= Rs. 2497433.6

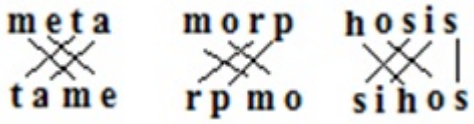
69 - C
Explanation:



70 - C
Explanation:Argument I is not strong as rules themselves may be questionable. Argument II is weak as the question is about children who may not be well equipped to decide what is good for them. Moreover, there are certain things in the society that cannot be regarded as personal. Therefore, they cannot be left to an individual's discretion. Argument III is not strong; the benefits of education are not only limited to getting employed, it is necessary for the overall development of the personality. Thus, option (C), is the correct answer.

71 - C

Explanation:
Similarly,



Hence, option (C) is correct.

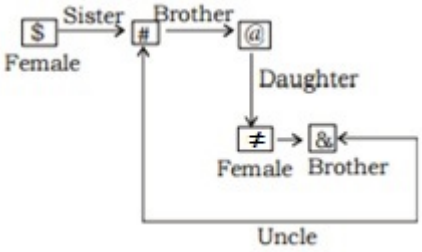
72 - C
Explanation:18th September, 1991 means 1990 complete years + 8 months of 1991 + 20 days of September.
Number of odd days in 1600 years = 0
Number of odd days in 300 years = 1
Number of odd days in 90 years
(22 leap years + 68 ordinary years)
= 22 x 2 + 68 x 1
= 44 + 68 = 112 days $\Rightarrow$ 0 odd days

Number of odd days in 1991,

January	3
February	0
March	3
April	2
May	3
June	2
July	3
August	3
September	6

= 3 + 0 + 3 + 2 + 3 + 2 + 3 + 3 + 6 = 25
= 3 weeks + 4 Odd days $\Rightarrow$ 4 Odd days.
Total number of Odd days till 20th September, 1991 = 0 + 1 + 0 + 4 = 5
So, the required day was Friday.

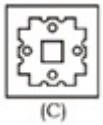
73 - D



Explanation:
Clearly, '#' is the uncle of '&'.

74 - B
Explanation:The beggars in the cities show failure of our economic system. Forcefully sending them to villages is not a solution, as they would crop up in no time. Argument I is strong against the proposition. Argument II is frivolous as country's citizens are more important than foreigners. Argument III is strong for the same reason as in argument I. Argument IV is not strong because beggars are as much citizens of our country as anybody else and they should be allowed to stay not just because they vote the government out of power but because it is their right to stay where they want. Thus, option (B) is correct.

75 - C



Explanation:

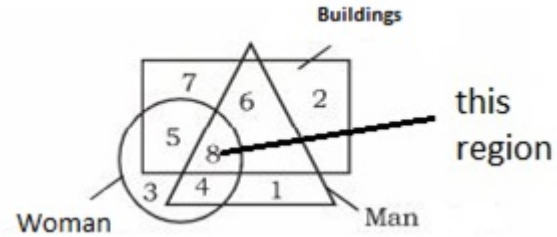
76 - C
Explanation:32 : 24
Only ' 32 : 24' is not the square of any number.

77 - C
Explanation:Since frequency is maximum for 7.
Mode = 7

78 - A
Explanation:The statement uses 'most'. Hence, cardio training is not an indispensable part of long distance running. Therefore, assumption II can be ruled out. However, since most runners opt for cardio training, it can be assumed that cardio training forms an integral part of long distance running.

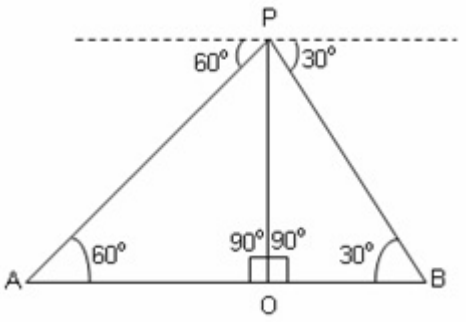
79 - A
Explanation:Use hit-and-trial method and try to find out which is right option.
16 + 5 - 10 x 4 $\div$ 3 = 9
after changing signs
16 x 5 $\div$ 10 + 4 - 3=9
16 x 0.5 +1=9
8+1=9
9=9
option (A) is right answer.

80 - D
Explanation:



81 - B
Explanation:The 20-litre mixture contains 20% milk and 80% water in it.
That is 4 litres of milk and 16 litres of water.
We are replacing the mixture with pure milk so that the amount of milk and water in the mixture is 50% and 50%.
So, we will end up with 10 litres of milk and 10 litres of water.
Water gets reduced by 6 litres.
To remove 6 litres of water from the original mixture containing 80% water, we need to remove $\frac{6}{0.8}$ litres of the mixture = 7.5 litres.

82 - C



Explanation:
Let OP be the building & A and B are the two cars.
Then, $OP = 60, \angle PAO = 60° \& \angle PBO = 30°$
from the right angle triangle OBP,
$tan30° = \frac{60}{OB} \Rightarrow OB = 60\sqrt{3}$
Also from the right angle triangle AOP $tan60° = \frac{60}{OA}$
$OA = \frac{60}{\sqrt{3}} = 20\sqrt{3}$
Thus $AB = AO + OB = 60\sqrt{3} + 20\sqrt{3}\text{m} = 80\sqrt{3}\,\text{m}$
=138.6 m

83 - D
Explanation:Both the assumptions are incorrect. It would be wrong to assume that personalized attention is imparted in tutorial classes. Furthermore, in a tutorial class, there can be a single student. In that case, group study and discussions can't take place. Hence, option (D) is the answer.

84 - D
Explanation:A is 9th from left and B is 5th from right position. After interchanging their positions, position of A will be 18th from the left. It means there are 8 people sitting between them, Now position of B from Right = (5 + 8) + 1 = 14

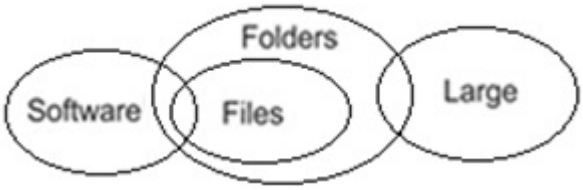
85 - D
Explanation:


The correct answer figure is (D).

86 - C
Explanation:Word **IMPASSIVE** cannot be formed using given word because letter 'V' is not present in the given word.

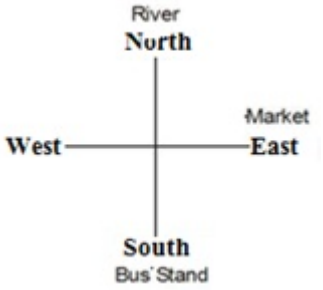
87 - C
Explanation:Since the H.C.F. is 4 so we can assume them as -
A = 4a and B = 4b where a & b should be co-prime to each other.
Now L.C.M. of A and B would be '4ab'.
4ab = 144 or, a x b=36. So, (1, 36); (4, 9) ; (9, 4) and (36, 1) are the possibilities.
Note that since the numbers are denoted as A and B so we should consider ordered pairs.

88 - C
Explanation:None of the conclusions are valid. We don't know if FDI investments will qualify for the tag "increasingly important trade partner". Similarly, we don't know the reason for Japan's increasing interest in India as an investment target. It can be an assumption but not a valid conclusion.

89 - C
Explanation:So only (III) follows.


90 - C
Explanation:M: 20,**75**
A: 03,**34**,97
N: 12,21,40,42,**58**,65,79,95
G: 00,**13**,,59
O:11,**30**,57,78,89
The set of numbers for the word 'MANGO' is **75, 34, 58, 13, 30.**

91 - A
Explanation:Only assumption I is implicit. Assumption II is invalid because road safety cannot be promoted because elections are round the corner.

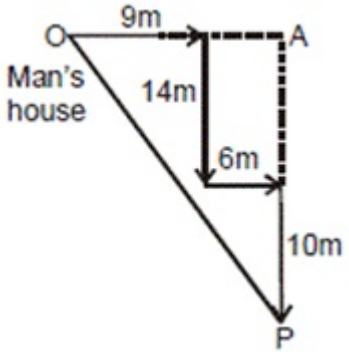
92 - B
Explanation:


93 - D
Explanation:29th June 1980 means =1979 complete years + 5 months and 29 days of 1980.
Number of odd days in 1600 years = 0
Number of odd days in 300 years = 1
Number of odd days in 79 years
= (19 leap years + 60 ordinary years) = 19 × 2 + 60 × 1
= 38 + 60
= 98 = 14 weeks ⇒ 0 odd days

January	February	March	April	May	June
3	1	3	2	3	1

Number of odd days in 1980 = 3 + 1 + 3 + 2 + 3 + 1 = 13 days ⇒ 6 odd days
Total 6 number of odd days till 29th June 1980.

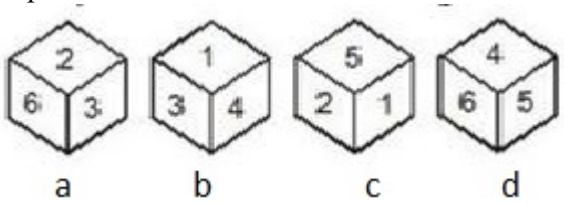
94 - B



Explanation:
$OP = \sqrt{15^2 + 24^2} = 3\sqrt{89}$ m

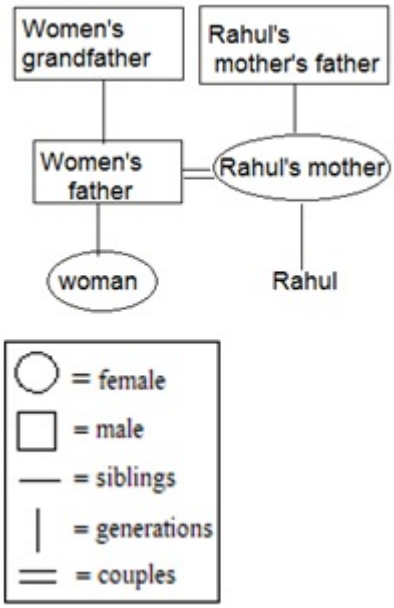
95 - D
Explanation:The series is A(1) C(3) E(5), G(7) I(9) K(11), and so on.
Alphabets in odd numbered positions are taken 3 at a time.
So, the required terms will be Y(25) A(1) C(3), E(5) G(7) I(9).

96 - A
Explanation:



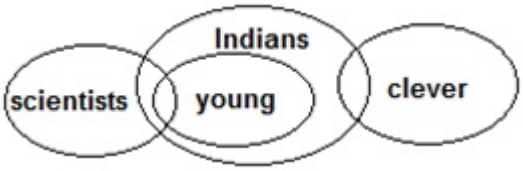
In any dice every face has 4 adjacent face and 1 opposite face.
from the given dice-figure (a) and(b) we can find out faces adjacent to face 3 ,which are 1,2,4,6,
so, the face opposite to the face 3 is face 5.

97 - B



Explanation:
Clearly, Women's father is Rahul's father.

98 - C
Explanation:So, only (III) follows.



99 - D
Explanation:The correct answer is **HIPPOPOTAMUS**.

100 - C
Explanation:7 x 391 ÷ 17 + 6 – 5
= 7 x 23 + 6 – 5
= 161 + 6 – 5
= 167 – 5
= 162