1. Several litres of acid were drawn off from a 54 L vessel full of acid and an equal amount of water is added. Again the same volume of mixture was drawn off and replaced by water. As a result, the vessel contained 24L of pure acid. How much acid was drawn off initially?

A.12L B.16L C.18L D.24L

Answer: C

Explanation:

24 = 54(1- x/54)^2 => 24/54 = (1 - x/54)^2 => 2/3 = 1- x/54 => x= 18L.

2. Fresh fruits contains 72% water and dry fruit contains 20% water. How much dry fruit from 100kg of fresh fruit can be obtained?

A.35kg B.32kg C.27kg D.22kg

Answer: A

Explanation:

Let x kg of dry fruit be obtained from 100kg of fresh fruit. Now pulp in fresh fruit = pulp in dry fruit => 28/100 *100 = 80/100 * x => x = 35 kg.

3. An application was received by inward clerk in the afternoon of a week day. Next day he forwarded it to the table of the senior clerk, who was on leave that day. The senior clerk put up the application to the desk officer next day in the evening. The desk officer studied the application and disposed off the matter on the same day i.e Friday. Which day was the application received by the inward clerk?

A.Wednesday B.Monday C.Tuesday D.Previous week's Saturday

Answer: A

Explanation:

The senior clerk got the application on Friday. The inward clerk got the application on Wednesday.

4. If Dennis is 1/3 rd the age of his father Keith now, and was 1/4 th the age of his father 5 year ago, then how old will his father Keith be 5 year from now?

A.45 year B.40 year C.55 year D.50 year

Answer: D

Explanation:

Let the present age of Dennis and his father be x and y respectively. Then, x = y/3.....(i) and (x-5) = (y-5)/4.....(ii) On solving both equation we get y= 45 year. Hence, required age = (y+5) = 50 year.

5. A person wishes to make a 100 sq m rectangular garden. Since he has only 30m barbed wire for fencing, he fences only three sides letting the house wall act as the fourth side. The width of the garden is

A.4m B.5m C.8m D.10m

Answer: B

Explanation:

Let, the length be 'l' and breadth be 'b'. Thus, l*b =100 => l= 100/b 100/b +b+b = 30 By solving this we get b= 10 and 5. b is not equal to 10 because it will become square. so, b=5m is the answer.

6. There are three prizes to be distributed among five students. If no students gets more than one prize, then this can be done in

A.10 ways B.30 ways C.60 ways D.80 ways

Answer: A

Explanation:

3 prize among 5 students can be distributed in 5C3 ways = 10 ways.

7. In a hockey championship, there are 153 matches played. Every two team played one match with each other. The number of teams participating in the championship is

A.18 B.19 C.17 D.16

Answer: A

Explanation:

Let there were x teams participating in the games, then total number of matches => nC2 = 153 On solving we get n= -17 and n=18. It cannot be negative so n=18 is the answer.

8. A bag contains 21 toys numbered 1 to 21. A toy is drawn and then another toy is drawn without replacement. Find the probability that both toys will show even numbers ?

A. 5/21 B.9/42 C.11/42 D.4/21

Answer: B

Explanation:

The probability that first toy shows the even number = 10/21. Since, the toy is not replaced there are now 9 even numbered toys and total 20 toys left. Hence, probability that second toy shows the even number = 9/20. Required probability = (10/21)*(9/20) = 9/42.

9. The ages of the two persons differ by 20 years. If 5 year ago, the older one be 5 times as old as the younger one, then their present ages, in year are

A.25, 5 B.30, 10 C.35, 15 D.50, 30

Answer: B

Explanation:

Let the age be x and y years now. Then, x - y =20.....(i) and (x-5) = 5(y-5)....(ii) On solving both equation we get x= 30 and y =10.

10. At what angle the hands of a clock are inclined at 15 minutes past 5 ?

A.72 1/2 B.67 1/2 C.58 1/2 D.64

Answer: B

Explanation:

At 15 min past 5, the minutes hand is at 3 and hour hand slightly ahead of 5. Now, the angle through which hour hand shifts in 15 min = (15 * 1/2) = 7.5 degree Angle at 15 min past 5 = 60 + 7.5 = 67.5 degree

11. Two motor cars were sold for Rs 9,900 each, gaining 10% on one and losing 10% on the other. The gain or loss percent in the whole transaction is

A.neither loss no gain B.1% gain C.100/99 % profit D.1% loss

Answer: D

Explanation:

In such transaction where SP is same and also gain % and loss % is same there is always a loss and such loss % => (common gain or loss % / 10)2 = (10/10)2 = 1% loss

12. The average of three numbers is 135. the largest number is 180 and the difference between the others is 25. The smallest number is

A.130 B.125 C.120 D.100

Answer: D

Explanation:

Given, (x-25)+x+180/ 3 = 135 => x=125 Hence smallest number is (125 - 25) = 100.