Quantitative Aptitude Interview Questions And Answers Guide.

Question - 1:

A man walks 3km east then 5km north then 8km east. Now how far is he from the starting point

Ans:

if u draw a rectangle of length of total(3+8) km and breadth 5km and draw a diagonal from the starting to ending point, by Pythagaros Theorem, square(hyp)=square(the both sides)
Therefore, 25+121=sqrt(answer)
it comes to be 12.083km

View All Answers

Question - 2:

One ship start his journey from a port and another ship start his journey from H at the same time, at which place they will meet?

Ans:

The right question is:A ship started from port and moving with I mph and another ship started from L and moving with H mph. At which place these two ships meet?
!_____!_____!_____!_____!_____!_____! port G H I J K L

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Question - 3:

Find the fourth row, having the bit pattern as an integer in an 8-bit computer, and express the answer in its decimal value.
A 0 0 0 0 1 1 1 1
B 0 0 1 1 0 0 1 1
C 0 1 0 1 0 1 0 1
(AU(B-C)) ?

Ans:

223 is answer
B-C is bitwise addition of B and 2s compliment of C
then bitwise union of A with abover result gives the ans as 1101 1111 which
has decimal value of 223.

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Question - 4:

Which of the following set of numbers has the highest Standard deviation?
1,0,1,0,1,0
-1,-1,-1,-1, -1,-1
1,1,1,1,1,1
1,1,0,-1,0,- 1

Ans:

-1,-1,-1,-1, -1,-1

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Question - 5:

Wind flows 160 miles in 330 min, for 80 miles how much time required?

Ans:

answer as 165
as
160 miles are covered in 330 min
1 mile will be covered in 330/160 min
Hence 80 miles will be covered in 80*330/160 =165 min.

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Question - 6:

A salesperson multiplied a number and got the answer 3, instead of that number divided by 3.What is the answer he actually has to get?

Ans:

3*1=3
instead of 1 if he divided by 3
then he will get 1only
3*(1/3)=1

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Question - 7:

For temperature a function is given according to time :((t**2)/6)+4t+12 what is the temperature rise or fall between 5PM to 8PM?

Ans:

Apply t=5, ans=33.7 for t=8, ans=46.7
The differenc between the two, 46.7-33.7=13 is the answr upto my knowledge.

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Question - 8:

A building with height D shadow up to G. A neighbor building with what height shadows C feet. |----|----|----|----|----|----|----| A B C D E F G H

Ans:

this can be solved by using the rule of cross multiplication i guess....
to get a shadow of G ft the ht of the building should be D
hence, for the shadow to be C ft, the height of the building should be CxD/G

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Question - 9:

27(deg) 6 43.15
45(deg) 31 4.3
find the degrees when the time is 3o clock?

Ans:

The angel between the minutes and hour hand would be 45 degree at 3'0 clock

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Question - 10:

What is the largest prime no. stored in 8bit/6bit/9bit/7bit memory?
2. A,B,C are the mechanisms used separately to reduce the wastage of fuel by 25%,20%,10%. What will be fuel economy if they were used combine?

Ans:

for 1st machine 100-25 ie 75
for 2nd machine 100-20 ie 80
for 3rd machine its 100-10 ie 95
so efficiency in rev = (90*80*75)/10000
=54
so fuel economy =100-54
=46

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Question - 11:

A bus started from bus stand at 8.00am, and after 30 minutes staying at destination, it returned back to the bus stand. The destination is 27 miles from the bus stand. The speed of the bus is 18mph. In return journey bus travels with 50% fast speed. At what time it returns to the bus stand?

Ans:

As the Bus is travelling 18mph it takes 1 & 1/2 hr to reach destination.
Bus stays there for 1/2 hr.
As in the return journy bus travelled with the 50% fast spped meance with the speed of 27mph. meance it took 1 hr to return
For total journy it took 1&1/2+1/2+1hr=3 hr.
therefore 8+3 =11
Bus returns as 11 a.m.

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Question - 12:

A plane moves from 9Ã‹Å¡N40Ã‹Å¡E to 9Ã‹Å¡N40Ã‹Å¡W. If the plane starts at 10 am and takes 8 hours to reach the destination, find the local arrival time?

Ans:

80 deg --------> 80*4 = 320 minutes = 5 hours 20 minutes
10 a.m + 8 hours = 6 p.m
6 p.m + 5 hours + 20 minutes = 11.20 p.m = answer

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Question - 13:

A ship started from port and moving with I mph and another ship started from L and moving with H mph. At which place these two ships meet ?
ans is between I and J and close to J
!_____!_____!_____!_____!_____!_____!_____!

Ans:

port G H I J K L

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Question - 14:

The number 362 in decimal system is given by (1362)x in the X system of numbers find the value of X
a} 5
b) 6
c) 7
d) 8
e) 9

Ans:

Ans. is 6.
(1362)to base x = (362) to base 10
so
1*x^3 + 3 * x^2 + 6 * x^1 + 2*x^0 = 362
substitute x = 6;
216 + 108 + 36 + 2 = 362.
we'll get 362.
Hence awnser is 6.

View All Answers

Question - 15:

A person was fined for exceeding the speed limit by 10mph. Another person was also fined for exceeding the same speed limit by twice the same. If the second person was traveling at a speed of 35 mph, find the speed limit?

Ans:

Threshold speed = x mph
let us assume that the 1st person was travelling at (x+10)mph
so it's obvious that the 2nd person travels at 2*(x+10)mph = 35mph; which means x = 7.5 which is the threshold or the speed limit.
So according to me the ans is 7.5mph.

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Question - 16:

TCS Quantitative Aptitude Questions:

Ans:

1. My flight takes of at 2am from a place at 18N 10E and landed 10 Hrs later at a place with coordinates 36N70W. What is the local time when my plane landed.
a) 6:00 am b) 6:40am c)7:40 d)7:00 e)8:00
2.in 80 coins one coin is counterfiet what is minimum number of weighings to find out counterfiet coin ?
3.Three men goes to a hotel to stay ,the clerk says $30 per room/day so all the three plans to stay in one room so each pays $10.After some time the clerk realizes that he made a mistake of collecting $30 but the room cost only $25,there fore he decides to return $5 to them so he calls the roomboy and gives him $5 asking him to return.The roomboy keeps $2 with him and he returns only $3($1 for each).Now Totally all have paid $9 each($27)+rommboy $2 which is equal to $27.where did $1 go,who has made the mistake?

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Question - 17:

A 0 0 0 0 1 1 1 1
B 0 0 1 1 0 0 1 1
C 0 1 0 1 0 1 0 1
Find (A u B) n C

Ans:

To find A-C, We will find 2's compliment of C and them add it with A,
That will give us (A-C)
2's compliment of C=1's compliment of C+1
=10101010+1=10101011
A-C=10101011+00001111
=10111010
Now (A-C) U B is .OR. logic operation on (A-C) and B
10111010.OR . 00110011
The answer is = 10111011,
Whose decimal equivalent is 187.

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Question - 18:

194 base 10= ___ base 5
The base 5 representation of the decimal number 2048 is_____?

Ans:

2048 to base 10:-
2 ["add" the next (first) digit]
2 * 10 = 20 [multiply by the base]
20 + 0 = 20 [add the next digit]
20 * 10 = 200 [multiply by the base]
200 + 4 = 204 [add the next digit]
204 * 10 = 2040 [multiply by the base]
2040+ 8 = 2048 [add the next digit]
??? to base 5:-
3
3* 5 = 15 [multiply by the base]
15+1 = 16 [add the next digit]
16* 5 = 80 [multiply by the base]
80+ 1 = 81 [add the next digit]
81* 5 = 405 [multiply by the base]
405+ 4 = 409 [add the next digit]
409*5 = 2045
2045+3 = 2048
since both the answers tally i.e., 2048==2048
hence the no. 31143 is the ans..

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Question - 19:

A work is done by two people in 24 min. one of them can do this work a lonely in 40 min. how much time required to do the same work for the second person?

Ans:

let A does the work in 40 mins (given)
let B does the work in x mins
amt of work done by A in 1 min = 1/40
amt of work done by B in 1 min = 1/x
amt of work done jointly by both A & B = 1/24
which implies (1/40)+(1/x) = (1/24)
on solvin the above eqn. for x we get
x = 60

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Question - 20:

Two trees are there. One grows at 3/5 of the other in 4 years, total growth of trees is 8 ft. what growth will smaller tree will have in 2 years?

Ans:

Answer should be 1.5 !!!
Let the trees be x,y
from question : -
eq1 is x = 3/5 (y)
eq2 after 4 yrs,
x+y = 8
from the 2 equations we get y = 5 and x = 3
according to our equation x= 3/5(y) -> x is the smaller tree.
In 4 yrs x grows 3ft
In 2 yrs x grows ?ft
Ans = 1.5ft.

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Question - 21:

Suppose Jalia is twice older than qurban. If Jalia was 4 years younger, qurban was 3 years older, the diff. between their ages is 12 years?

Ans:

Jalia is 38 years old and qurban is 19 years old.
38-4=34 jalia younger
19+3=22 qurban older the difference btw them is 34-22=12.

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Question - 22:

If A,B,C are the mechanism used seperately to reduce the wastage of the fuel by 30%, 40%, 10% What will be the fuel economy if they were used Combined?
A. 68.4
B. 62.2
C. 58
D. 27

Ans:

Let each mechanism solution is 100 litre.
In "A" mechanism, wastage is (100-30)/100 = 70 %
In "B" mechanism, wastage is (100-40)/100 = 60 %
In "C" mechanism, wastage is (100-10)/100 = 90 %
If all are combined,total solution = 300 litres
Total wastage = 220 litres
Total used fuel = 80 litres

So, wastage in 100 litres = 80/3 litres
% wastage = 26.6666.... %
= 27 % (approx)

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Question - 23:

A super fast bus of KSRTC starting from Trivandrum and reaches Attingal in 45 minutes with an average speed of 40 km/hr. If the speed is increased by 10 km/hr how much time it will take to cover the same distance?
(a) 34 minutes
(b) 36 minutes
(c) 38 minutes
(d) 40 minutes

Ans:

b) 36 min
d=s*t
s=40 km/hr=40/60km/min
t=45min
d=(4/6)*45=30km
now increased speed= 50 km/hr=50/60 km/min
d=30 km
t=d/s
= 36 min

View All Answers

Question - 24:

A ship started from port and moving with I miles per hour and another ship started from L and moving with H miles per hour. At which place these two ships meet?
|----|----|----|----|----|----| port G H I J K L

Ans:

Well ship A moves at 2blks per hr and ship B moves at 4 blks per hr..assuming they move towards each we should have the answer between h and i. Lets take one hr time, ship A will be at I and B at H, it means they have alredy met so just moving them both back we will have their meeting between H&I.

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Question - 25:

when 3/4 of a units digit is added to tens digit of a two number,the sum of the digit becomes 10.If 1/4 of the tens digit added to the units digit then the sum of the digits is 1 less than the previous.Find the number
a)94
b)84
c)48
d)88

Ans:

answer is 48(c)

View All Answers

Question - 26:

the base 5 representation of the decimal number 2048 is_____?

Ans:

answer is 31143

View All Answers

Question - 27:

194 base 10= ___ base 5?

Ans:

answer is 1234

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Question - 28:

In a two dimensional array X(9,7) with each element occupying 4 bytes of memory with the address of the first element x(1,1) is 3000,find the address of X(8,5) ?

Ans:

Ans is 3212 but how explain

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Question - 29:

Which of the following set of numbers has the highest Standard deviation?
a) 1,0,1,0,1,0
b) -1, -1, -1, -1, -1, -1
c) 1,1,1,1,1,1
d) 1,1,0, -1,0, -1

Ans:

There is a mathematical formula for calculating standard deviation, but you don't need it for this question. StDev is a measurement of how much variation there is among different numbers in a series. Since choices b and c contain the same number 6 times, there is no variation. choice d also doesn't show much variation. Number 1 does vary from one point to the next, so it has variance, and therefore would have a higher StDev.
ans: choice (a)

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Question - 30:

1.If g (0)=g (1)=1
And g (n)= g (n-1) + g (n â€"2) find g (6);

Ans:

Given g(0) = g(1) = 1.
To find: g(6)
g(n) = g(n-1) + g(n-2)
g(2) = g(1) + g(0) = 1 + 1 = 2
g(3) = g(2) + g(1) = 2 + 1 = 3
g(4) = g(3) + g(2) = 3 + 2 = 5
g(5) = g(4) + g(3) = 5 + 3 = 8
g(6) = g(5) + g(4) = 8 + 5 = 13.
7

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Question - 31:

Low temperature at the night in a city is 1/3 more than 1/2 high as higher temperature in a day. Sum of the low temperature and highest temp. is 100 degrees. Then what is the low temp?

Ans:

night temp=n,day temp=d
n=1/3*d/2+d/2==4d/6
n+d=100(given)
hence, 4d/6+d=100
d==60
n==40 deg

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Question - 32:

What is the probability that 4 numbers selected from 1 to 40 are not consecutive?

Ans:

From 1 to 40 there are 37 possible combinations of 4 consecutive numbers.
Total number of possible combinations= 40C4.
Probability of outcome to be consecutive = 37/(40C4)= 1/2470
Probability of outcome not to be consecutive = 1-(1/2470)= 2469/2470

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Question - 33:

a 100100011
b 000110010
c 100000110
then find a-(buc) or au(b-c)?

Ans:

(buc)=100110110
(i) we know that (a-b)=a intersection b'
therefor a-(buc)=a intersection (buc)'
(buc)'=011001001
a intersection (buc)'=00000001=a-(buc)
(ii)similarly au(b-c)=100110011

View All Answers

Question - 34:

A man walks at the speed of 4km per hour from point A to B and comes back from point B to A at the speed of 8km per hour. What is the ratio between the time taken by man from point A to B and B to A?

Ans:

4 km/hr from A to B = s1
8 km/hr from B to A = s2
Speed = Distance/Time
s1 = d1/t1
s2 = d2/t2
s1/s2 = t2/t1
We need t1/t2 so,
Answer ratio is 2:1

View All Answers

Question - 35:

Two pencils costs 8 cents, then 5 pencils cost how much ?

Ans:

2 pencils cost = 8
5 pencils cost = ?
cross multiply
8*5/2 = 40 / 2 = 20
so 20 is price of 5 pencils

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Question - 36:

The program size is N. The memory occupied by the program is M=4000sqrt(N). If the program size is increased by 1%. Then what is the percentage increase in memory?

Ans:

4020sqrt(N)

View All Answers

Question - 37:

If 8 men can reap 80 hectares in 24 days, then how many hectares can 36 men reap in 30 days?

Ans:

By Direct approach :
more men,more hectares
moredays,more hectares
so,
8 / 36 : 24 / 30 = 80 / x
x = (36 x 30 x 80) / (8 x 24)
450

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Question - 38:

A moves 3km. east from his starting point,he then travels 5km north,from that point he moves 8kms to the east. how far is A from his starting point?
if a student scores GPA in his sem & year as given below then calculate his GPA for 3 year.
sem 2.4,3.4
yr 1.3,1.9
bbgmpqbgskobgasbbgdefbgsti how many bs are followed by gs which are not followed by s in the above series?
M(373,5)+r(3.4)+t(7.7)-r(5.8)=?
t=truncation ,r=round-off

Ans:

A-starting point
B-starting point of 5km walk
C-starting point of 8km walk
D-Final point
Now to find distance between A and D.
BCD makes a right-angle triangle... therefore,
DB=sqrt(64+25) ..... (pythagoras theorem)
DB=9.43
Now AD=AB+DB=3+9.43
Hence, AD=12.43 (Answer)

View All Answers

Question - 39:

Two pipes A and B fill at A certain rate B is filled at 10,20,40,80,. If 1/16 of B if filled in 17 hours what time it will take to get completely filled?

Ans:

It fills at a rate of 2 (i.e) 10,20,40.... 1/16 is filled in 17hr. then it fills as 1/8,1/4,1/2,1.. Hence 17+1+1+1+1=21

View All Answers

Question - 40:

An amount doubles itself in 3 years. When This amount can become 8 times of itself?

Ans:

Suppose Amount Was Rs 100.00 In 1st Year
1 To 3 Yrs - 200
4 To 6 Yrs - 400
7 To 9 Yes - 800

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Question - 41:

Given 3 lines in the plane such that the points of intersection form a triangle with sides of length 20, 20 and 30, What is the number of points equidistant from all the 3 lines?

Ans:

1
As it is the incenter of the formed triangle which is equidistant from all the three lines...

View All Answers

Question - 42:

Find the right number, from the given options, at the place marked by the question mark: 2, 4, 8, 32, 256, ?

Ans:

Each of the preceding number is multipied by the previous number
So on multiplying 2*2 = 4
4*2 = 8
8*4 = 32
32*8 = 256
256*32 = 8192
so the answer for this series is 8192

View All Answers

Question - 43:

A moves 3 kms east from his starting point . He then travels 5 kms north. From that point he moves 8 kms to the east.How far is A from his starting point?

Ans:

ans is 12.43...
diagramatically, u wil get a right angled triangle with sides 5 n 8.. using pythogoras th. 3rd side will b 9.43..
9.43+3= 12.43

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Question - 44:

After the typist writes 12 letters and addresses 12 envelopes, he inserts 1 letter per envelope randomly into the envelopes. What is the probability that exactly 1 letter is inserted in an improper envelope?

Ans:

as 1 letter cannot be in improper envelope. there has to be more than 1 letter that is in improper envelope

View All Answers

Question - 45:

A candidate appearing for an examination has to secure 40% marks to pass paper I. But he secured only 40 marks and failed by 20 marks. What is the maximum mark for paper I?

Ans:

let us consider x is the maximumber number of marks.
secured marks => 40% of x= 40/100 of x=2x/5
To pass an exam he has to score =fail marks+20
=40+20=60
2x/5=60
x=150
maximum marks for paper I is =150

View All Answers

Question - 46:

The cost of one pencil, two pens and four erasers is Rs.22 while the cost of five pencils, four pens and two erasers is Rs.32.How much will three pencils, three pens and three erasers cost?

Ans:

Let a, b, and c denote pencil, pen and eraser respectively.
Given that the cost of one pencil, two pens and four erasers is Rs.22
This can be written as,
a + 2b + 4c = 22 .....(1)
Similarly, the cost of 5 pencils, 4 pens and 2 erasers is Rs. 32
This implies ....
5a + 4B + 2c = 32 ..... (2)
Adding (1) and (2), we get
6a + 6b + 6c = 54
We need to find the value of 3a + 3b + 3c.
Dividing by 2, we get
3a + 3b + 3c = 27.
Hence, the cost of 3 pencils, 3 pens, and 3 erasers is Rs.27

View All Answers

Question - 47:

If A is traveling at 72 km per hour on a highway. B is
traveling at a speed of 25 meters per second on a highway.
What is the difference in their speeds in m/sec?

Ans:

ya the answer is 5sec..
converting 72kmph in m/sec we get 20m/sec
so 25-20=5sec/m

View All Answers

Question - 48:

How many 5 digit numbers can be formed using the digits 1, 2, 3, 4, 5 (but with repetition) that are divisible by 4?

Ans:

Divisibility rule of 4 is last two digits are divisible by 4
so in 5 digit no last two digit should always be 12,24,32,44,52;
(any one of them may be)
so for last two digits 5 ways are possible ;
since repetion are allowed then for 3rs place form right there are also 5 ways so in 3rd place either of 1,2,3,4,5 is possible;
simillarly at 4 rth place either of 1,2,3,4,5 is possible so again 5 ways are possible
simillarly at 5th place also 5 ways are possible
so total no are: 5*5*5*5=625

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Question - 49:

A person, who decided to go to weekend trip should not exceed 8 hours driving in a day. Average speed of forward journey is 40 m/h. Due to traffic in Sundays, the return journey average speed is 30 m/h. How far he can select a picnic spot?
a) 120 miles
b) Between 120 and 140 miles
c) 160 miles

Ans:

solution--- t1= time for forword journey. t2 =time 4 return journey. t=t1 + t2 =8hrs; x= destination; t1 + t2 = x / 40 + x / 30 = 8; x(7/120) = 8; x= 8*120/ 7 = 137 milesie answer is(b)

View All Answers

Question - 50:

1/3 of a number is 3 more than 1/6 of the same number.
What is the number?

Ans:

let x be a no
now 1/3 of a no is x/3
and again
x/3=x/6+3
x/3-x/6=3.
x=18

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Question - 51:

A circular dart board of radius 1 foot is at a distance of 20 feet from you. You throw a dart at it and it hits the dartboard at some point X in the circle. What is the probability that X is closer to the center of the circle than the periphery?

Ans:

1/4

View All Answers

Question - 52:

What is the largest prime no. stored in 8bit/6bit/9bit/7bit memory?
A,B,C are the mechanisms used separately?

Ans:

for 6 bit maximum allowed number is 64 prime number is 61
for 7 bit maximum allowed number is 128 prime number is 127
for 8 bit max allowed number is 256 prime number is 253
for 9 bit max allowed number is 512 prime number is 511

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Question - 53:

Explain series: 2,7,24,77,.

Ans:

Ans is:
2*3+1=7
7*3+3=24
24*3+5=77
77*3+7=238
Therefore ans is 238

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Question - 54:

In a group of 15, 7 have studied Latin, 8 have studied Greek, and 3 have not studied either. How many of these studied both Latin and Greek?
A. 0
B. 3
C. 4
D. 5

Ans:

L=7
G=8
Total number of students(U)=15
Number of students who study neither of them (N)=3
draw a simple diagram representing the above situation.
we need to find out L INTERSECTION G.
Thus we have,
L UNION G + N = 15
L UNION G = L + G - L INTERSECTION G = 7 + 8 - L INTERSECTION G
L INTERSECTION G= 7 + 8 +N-15
= 7+8+3-15
= 3

View All Answers

Question - 55:

36 people {a1, a2, ..., a36} meet and shake hands in a circular fashion. In other words, there are totally 36 handshakes involving the pairs, {a1, a2}, {a2, a3}, ..., {a35, a36}, {a36, a1}. Find the size of the smallest set of people such that the rest have shaken hands with at least one person in the set?

Ans:

For at least one person & for exactly one person =36/3
For at least two person & for exactly two person =36/2
so
ans is 36/3= 12
if question is asked lyk no "cycle" then n-1.
i.e.36-1

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