ELITMUS Papers

A and B started from the same point on a circular track. The ratio of their speed is n:1 (n is a whole number). If 5th and 17th time they meet at the same point, what can not be the value of n?
A) 2 B) 3 C) 4 D) 6

6
as the total meeting points(mp) in a circle will be n-1(from ratio of velocities even it is not mentioned,faster will have more velocity=nk)

wnen n=2 mp=1 5th and 17 coincide

when n=6 mp5 5th will coincide with 10th 15th 20th.....

and 17th will coincide with 2th 7th 12th .....

ans = D) 6

32400 students login everyday to Elitmus website. and stay on the website for 9 minutes. If the access to website if for only 18 hours in a day, then how many students can be found online at a point of time?
A) 324 B) 300 C) 270 D) 200

270
32400*9/(18*60)= 270

If dP1, dP2, ...,dP24 are the difference between 24 prime numbers in series. 89 is the 24th Prime numbers Find the sum of dP1 + ... + dP24? (8th june Elitmus)
A) 85 B) 89 C) 95 D) 97

25 prime no.s b/n 1 & 100 are
2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97

difference b/n two primes
dp1 =p2-p1= 3-2 =1
dp2 =p3-p2= 5-3 =2
...
dp24 = p25-p24 = 97-89 = 8

1, 2, 2, 4, 2, 4, 2, 4, 6, 2, 6, 4, 2, 4, 6, 6, 2, 6, 4, 2, 6, 4, 6, 8

sum = dP1 + ... + dP24 = 95

Find the correct order of statements:
A) Its mission statement from the outset was "to organize the world's information and make it

universally accessible and useful".
B) Together they own about 14 percent of its shares but control 56 of the stockholder voting power through supervoting stock.
C) Google Inc is an American multinational corporation specializing in Internet-related services and products.
D) Google was founded by Larry Page and Sergey Brin.
E) These include online advertising technologies, search, cloud computing, and software.Most of its profits are derived from AdWords.

C E D B A

is the correct order of statements.

There are two concentric circles, between them a running track is there, Milkha singh can run 24m straight starting from one point on the outer circle to the other point on the outer circle touching only once the inner circle. What is the amount of synthetic material required to build the track. (Asked on 8th June)
A) 144 pi B) 162 pi C) 192 pi

144 piMilkha singh can run along an eq. triangle of side 24 cm ,for which inner circle will be incircle of triangle.
if r be radius of inner circle then
area of triangle = r*s where,s =semi perimeter of triangle
=> √3/4 * 24*24 = r*(24+24+24)/2 => r = 4√3 cm
if R be radius of outer circle then, R =√(12^2+r^2) = √192 cm

amount of synthetic material required = pi*(R^2-r^2)=pi*(192-48)= 144pi

If there is a cube of dimension 7*7*7 which is made up of 343 smaller cube. A square of dimension 3*3*3 is inserted on each face of the cube. what is the total number of replaced smaller cube? A) 109 B) 162 C) 192 D) ?

I guess 162
dimension of each smaller cube is 1*1*1, since 7*7*7=343 & it is made of 343 smaller cube so dimension of any smaller cube is 1-1-1.
now 3*3*3=27, therefore 27 smaller 1-1-1 cube has to be replace from each face
since we have total 6 faces, therefore 27*6=162

What is the approx. value of W, if W=(1.5)*11,Given log2=0.301, log 3=.477.
A) 68 B) 86 C) 105 D) 125

if W =(1.5)*11 then simply,W = 16.5

if, W=(1.5)^11
take log both sides

=> logW = 11*log(1.5) =11*log(3/2)
=> logW = 11(log3-log2)= 11*0.176 = 1.936
=> W = 10^(1.936)
=> W = 86 (approax.)

if x,y,z are super prime no's then what is product xyz equal to?(if p is a prime , p+1 is a super prime)
1.xy(z-1) 2.yz(x-1) 3.xz(y-1) 4.cannot be determined.

for any no.s x,y,z
xyz cant be equal to any one of 1.xy(z-1) 2.yz(x-1) 3.xz(y-1)

but yz(x-1) will be closest to xyz, as x is greatest so, xyz ~ yz(x-1)

Find x, 192 five digit numbers can be made using the digits 1,2,3,4,5 and x.

option was only6, only8, 6 or 8, 0 or6 or 8

ans is only 6.
we have 12,24,32,52 no divisible by 4 as no given 1,2,3,4,5
when x=6, 16,36,56,64
when x=8, 28,48,84 which are divisible by 4 at last two places.
and we have 4! nos at first 4 places=24.
192/24=8
so only 6 is answer.

How many three digit numbers are there in which product of their digit is 36. Ex: 236, in this product of digit is 36

if (x,y,z) are digits then x*y*z=36 where x,y,z less than 10

(1,9,4)=> 6 no.s 149,194,419,491,914,941
(1,6,6)=> 3 no.s 166,661,616
(2,9,2)=> 3
(2,6,3)=> 6
(3,4,3)=> 3

total no. = 6+3+3+6+3= 21

What is sum of last 5 digit in (2020202)^4 ?

ans: 17

last 5 digit in (2020202)^4
can be obtained by last 5 digit in (--20202)^4

(20202)^4
2^4*(10101)^4
16*[(10101)^2]^2
consider only last 5 digit
16*(30201)^2
16*(00401)
06416

sum of last 5 digit in (2020202)^4 = 0+6+4+1+6 = 17

A cow was standing on a bridge, 5m away from middle of the bridge. A train was coming towards the bridge from the end nearest to the cow. seeing this the cow ran towards the train and managed to escape when the train was 2m away from the bridge. if it had run in the opposite direction (i.e away from the train) it would have been hit by the train 2m before the end of the bridge , what is the length of the bridge in metres assuming speed of train is 4 times that of the cow?
Option
a. 32
b. 36
c. 40
d. Can't b detrmnd

|...|.....|....|.....|...|.....|
2 x-2 M 5 C x-5 2 a T

where M,T,C are Middle point and Train location and Cow location

1st:
Train distance=a
cow distance=x-5
Time taken by both is same let it be=t1
Given train speed(Ts)=4*Cow speed(Tc)
we have
a/t1=4*(x-5)/t1
20=4x-a ----------eq 1

case 2:
Train distance=a+2+x+x-2=2x+a
cow distance=5+x-2=3+x
Time taken by both is same let it be=t2
Given train speed(Ts)=4*Cow speed(Tc)
we have
2x+a/t2=4(3+x)/t2
2x+a=12+4x
-12=2x-a ----------eq 2
solve equations to get x=16
so lenght of bridge is 2x= 32

How many six digits number can be formed using the digits 0 to 5, without repetition such that the number is divisible by the digit at its unit place.
Option
a. 420
b. 426
c. 432
d. none

b. 426

0 can't hold 1st or last position
-----0 => not possible(a no. can't be divided by 0)
-----1 => 4*4*3*2= 96 (divisible by 1)
-----2 => 4*4*3*2= 96 (divisible by 2)
-----3 => 4*4*3*2= 96 (divisible by 3 as 0+1+2+3+4+5=15)

for a no. to be divisible by 4, last two digit should be 04,24
----04 => 4*3*2 = 24
----24 => 3*3*2 = 18

-----5 => 4*4*3*2 = 96 (divisible by 5)

total no. formed = 96*4 + 24 + 18 = 426

there is a bridge of 40m length.a cow is standing 5m away from the middle of the bridge.a train is coming from the direction nearest to the cow.if the cow runs towards the opposite direction of the train then he escapes the bridge when the train is 2m away from the bridge and if the cow runs towards the same direction as of the train then the train hits the cow 2m before the other end of the bridge.then what is the ratio of speed of the cow and the train...?

1:5

Let the train be at a distance 'd' from the bridge.
And speed of train be 'x' and speed of cow 'y'

If the cow runs in the opposite direction
(d-2)/x = 15/y
y/x = 15/(d-2) ---(1)

If the cow runs in the same direction of train
(d+38)/x = 23/y
y/x = 23/(d+38) ---(2)

From (1) and (2)
15/(d-2) = 23/(d+38)
d = 77

ie,
Speed of cow/speed of train
= y/x
= 15/(d-2)
=15/75
=1/5

Ratio = 1:5

In 4*4 matrix what is probability of forming a triangle when any three points are chosen at random?

o form a triange, we need 3 points

n(S)= 16c3 = 560

from 3 collinear point, we can't form a triangle,
no. of such combination = 4*4c3 + 4*4c3 + 2*4c3 + 4 = 44
[these are for same rows,columns,diagonals & oppisite to diagonals]

n(E)= triangle formation = 16c3 - 44 = 560-44 = 516

probability of forming a triangle = p = n(E)/n(S) = 516/560.

Q. Find then sum of numbers between 1 to 200 which when divided by either 5 or 7 leaves remainder of 2?

6341

Number which leaves remainder 2, when divided by 5 are 7,12,17,22,....,197
So 197=7+(n-1)5, n=39,Sum of these numbers=(39/2)[2*7+38*5]=3978
Similarly,
Number which leaves remainder 2, when divided by 7 are 9,16,23,30,.....,198
So 198=9+(n-1)7, n=28,Sum of these numbers=(28/2)[2*9+27*7]=2898

As above both the sum includes some common numbers 37,72,107,142,177
we have to subtract once,the sum of these common numbers(=535),to find the sum of all the numbers
So Sum of all the numbers=3978+2898-535= 6341

In How many ways can 12 papers be arranged if the best and the worst papers never come together?

ssume two particular paper as one paper,so total number of ways to arrenge this=(12-1)!=11!,now these two paper can be arrenged in 2 ways.....without any restriction paper can be arrenged in 12! ways.
so number ways is=12!-2.11!=10.11!ways

A man ate 100 apple in five days daily he ate more than 6 apples when compare to previous day how many apples he ate in first day.....?

1st day x
2nd day x+6
3rd day x+6+6
4th day x+6+6+6
5th day X+6+6+6+6

add all 5x+60=100
5x=40
x=8
answer is 8

The radius of Mars is about one half the radius of Earth. What fraction of Earth's volume is Mars' volume?

et radii are r & r/2
volume= 4/3*pi*(r^3)
fraction= (r^3/8)/(r^3)
= 1/8

The circle o having a diameter 2 cm,has square inscribed in it each side of the square is then taken as the diameter to form 4 smaller circles to' find the total area of 4 circles which is outside the circle O.

Since the square is inscribed in the circle,
diameter of circle = diagonal of square

===> diagonal of square = 2 cm
Side of square = diagonal/sqrt(2)= 2/sqrt(2) cm

Diameter of each of the 4 circles = 2/sqrt(2)
Radius of each of the 4 circles ,r = diameter/2 = 1/sqrt(2)

Total area of 4 circles = 4 * pi * r^2
=4 * pi * 1/2
=2*pi
=6.283cm^2

What will be the remainder if 16/12?
4 or 1.

4

16 ==> 12 * 1 + 4 = 16

So remainder is 4...

Ratio of boys to girls 4:5 , when 100 girls leave the school the ratio becomes 6:7 . How many boys are there ?
a) 1600
b) 1200
c) 600
d) 800

B/G = 4/5 => G = 5B/4 -----(1)

B/(G-100) = 6/7 ------(2)
=> 7B = 6G -600
=> 7B = 6*5B/4 -600
=> 28B = 30B -2400
=> 2B = 2400
=> B = 1200

b) 1200

v,w,x,y,z are non negative integers each <11, then how many distinct combinations of (v,w,x,y,z) satisfy
v(11^4)+w(11^3)+x(11^2)+y(11)+z= 151001

v(11^4)+w(11^3)+x(11^2)+y(11)+z= 151001

=> 11*(v*11^3 + w*11^2+ x*11 + y) + z = 11*13727 + 4

=> (v*11^3 + w*11^2+ x*11 + y)= 13727 & z = 4

=> 11*(v*11^2 + w*11 + x) + y = 11*1247 + 10

=> (v*11^2 + w*11 + x)= 1247 & y = 10

=> 11*(v*11 + w) + x = 11*113 + 4

=> (v*11 + w)= 113 & x = 4

=> (v*11 + w) = 11*10 + 3

=> v = 10 & w = 3

so, v=10, w=3, x=4, y=10 ,z=4

(v,w,x,y,z)=(10,3,4,10,4)

so, only one combination

How many values of 'c' results in rational roots which are integer in x^2-5x+c.
Options
a) 1
b) 3
c) 6
d) Infinite

equation is
x^2-5x+c=0

=> x = [5 +- √(25-4c)]/2

c=0 => x = 5,0
c=4 => x = 4,1
c=6 => x = 2,3
c=-6 => x = 6, -1
.....

thus we see that, for c = 0,4,6,-6,... we get rational roots which are integers

no. of values of c = infinite

A Box Contain 3 Red And 2 White balls and balls are taken out one by one Without replacement. So what is the Probability the White Balls Always come at Last?

Its 2/5.
Keep 1 white ball fix at last
Then there will be 4 combinations
Hence 4* 1/10 = 2/5

k1= -19 k2= -139/3 such that Kj=Kj-1 – Kj-2 . j is in sub script. Find the 602nd term of such a sequence.

ns:- -139/3

according to sequence given

K1= -19
K2= -139/3
K3= -82/3
K4= 57/3
K5= 139/3
K6= 82/3
K7= -19(repeats)
.
.
.
K601= -19
K602= -139/3

how many values of c in the equation
x^2-5x+c=0, results in rational roots which are integer.
a) 1
b) 3
c) 0
d) infinite

x^2-5x+c=0
=> x= [5+-sqrt(25-4c)]/2

for, c = 0,4,6,-6,-14,-24,... we get rational roots which are integers
so,c has infinite no. of values.
d) infinite

The wages of labourers in a factory increases in the ratio 22:25 and there was a reduction in the number of labourers in the ratio 15:11. Find the original wage bill if the present bill is Rs 5000?

Lets say wages of labour =x
number of labour= y
From given data..

25x 11y =5000

22x 15y =?
so 22x 15y * 5000/ 25x 11y
400*15=6000rs

A sum of money doubles itself at compound interest in 15 yrs. In how many years it will become eight times?

CI=p(1+R/100)^15=2p
= (1+R/100)^15 --->(1)

if it is 8P, n=?
P(1+R/100)^n=8P
(1+R/100)^n=8
(1+R/100)^n=2^3

sub 2=(1+R/100)^15

(1+R/100)^n=((1+R/100)^15)^3

(1+R/100)^n=(1+R/100)^45

n=45

So after 45 years it ll become 8 times

Q. A garden has only red,green and white flowers. 60% of the flowers have red colours,30% have green colours and 50% have white colours. If no glowers has all the three colours , what percentage of the flowers have only 1 colours?

n(R U G U W)=100, n(R ∩ G ∩ W)=0
n(R)=60, n(G)=30, n(W)=50

n(R U G U W)=n(R)+n(G)+n(W)- n(R∩G)-n(G∩W)- n(W∩R)+n(R∩G∩W)
=> n(R∩G)+n(G∩W)+n(W∩R)=n(R)+n(G)+n(W)-n(R U G U W)+n(R∩G∩W)=60+30+50-100+0=40

only(R)=n(R)-n(R∩W)-n(R∩G)
only(G)=n(G)-n(R∩G)-n(W∩G)
only(W)=n(W)-n(R∩W)-n(W∩G)
---
adding => only(R)+only(G)+only(W)=n(R)+n(G)+n(W)-2[n(R∩G)+n(G∩W)+n(W∩R)]
=> only(R)+only(G)+only(W)=60+30+50-2*40=60

SO 60% of the flowers have only 1 colour

In a triangle A is the greatest angle ana A+7B=155 then what will be the range of c

Answer 30 < c < 85
Solution:
A+7B=155 .....(1)
A+B+C=180 .....(2)
from (1) & (2)
6B-25=C .....(3)
now try the least possible value of B and the max value of B and get the range of C.
for example:
clearly put B=1 you will get C=31 hence C should be greater than 30.

Now put B=10 , u will get C=85 but B+C=95 hence A=85 but it is given A is greatest.
So C should be less than 85. :)

H A T
*** C U P**

E I U I
E A R T
E U P I

H I E E E I

345
***876**
_____
2070
2415
2760
_____
302220

i have to numberd my house such that if it is a multiple of 3 than numberd (50 to 59) and if it not divisible by 4 than can numberd (60 to 69).....

Que.1- what can be my house number
(a)51 (b)63 (c)64 (d) All of the above

we have to 1st consider multiple of 3,if its not then apply 2nd condition not divisible by 4
51 is divisible by 3 but not by 4,satisfies both condition,cant be number twice
a)51 is multiple of 3 so must numbered betn 50 to 59(T)
b)63 is multiple of 3 so must numbered betn 50 to 59(F)
c)64 is not multiple of 3,but multiple of 4,so it cant be house number(F)
d)all of above(F)
ans(a)

x=2^30 ,y=3^20,z=6^10
which of the following is closest to xyz
a)(x-1)yz b)x(y-1)z c)xy(z-1) d)can't be determined

The question is trying to test the reasoning of which number is the biggest number.

Lets consider the following example, to understand that.

Assume a multiplicatin like 19 * 3,
If I change, 3 to 2 the effect will be much bigger, because it is affecting the other bigger multiple
If I change 19 to 18, the effect is much smaller.

So, of the three values, if we can subtract 1 from the biggest value, the effect will be smaller,.

So, the entire question is about finding the biggest number

To find the highest,

3^20 can be written as (3^4) ^ 5 which is (81)^5, this is bigger than 2^30, which can be written as (2^6)^5 that is 64 ^ 5
(81)^5 is also bigger than 6^ 10 which can be written as (36)^5

So, 3^20 is the biggest number and the effect will be smaller when we subtract one from it.

As the effect is smaler that number is closer to XYZ.

So, x(y-1)z is the answer
option B is the answer

z is a number in decimal system that z = 260*1024 + 73*512 +128*129 +81 +9.Let y be te octal representation of z .how many times will the digit 3 be there in y .
option
1. 2
2. 3
3. 4
4. 5

First lets convert everything into the highest power of 8 visible in the question, that is 512.

S0, it can be written as 520 * 512 + 73 * 512 + 128 * (128+1), the reason for changing the 128 expression is to convert it also into 512.
So, the expression is 512 * 520 + 512 * 32 + 512 * 32(which is 128/4)

So, that will result as 512 * 625
Now this will help in finding all the digits from 4 th digit, the method is
dividing 625 by 8, the quotient is 78 and remainder is 1
dividing 78 by 8, the quotient is 9 and the remainder is 6
dividing 9 by 8, the quotient is 1 and the remainder is 1

So, the first four (from right) digits of the octal expression are 1161.

Now the sum of remaining three numbers is 128 + 81 +9 = 218

If we divide it by 8, the quotient is 27 and remainder 2
If 27 is divided by 8, the quotient is 3 and remainder is 3

So, the last three digits are 332

So, the entire number is 1161332
The number of 3's is two
Answer is two

If n+x and n+y both are perfect square and x=18, y=90, then how many values of n will satisfied above condition

for 3 values of n.
i.e. n=31, n=271, n=-9
for n=31
31+18=49=7
31+90=121=11

for n=271
271+18=289=17
271+90=361=19

for n=-9
-9+18=9 =3
-9+90=81 =9

If 1/a + 1/b + 1/c = 1/(a+b+c)where a+b+c is not equal to 0, what is the value of (a+b)(b+c)(c+a)...
(a) 0
(b) >0
(c) 1

Ans is o i.e, (a)
As 1/a+1/b+1/c=1/(a+b+c),
=>(a+b+c)(ab+bc+ac)=abc
=>a^2(b+c)+b^2(a+c)+c^2(a+b)-2abc=0.
Similarly on solving (a+b)(b+c)(c+a)=a^2(b+c)+b^2(a+c)+c^2(a+b)=0

The interior angle of an octagon ABCDEFGH are in AP.if the largest and second largest hav an avg of 153, find the avg of the least two?
A)117
B)131
C)141
D)cant be determined

A) 117

let the angles be
a , (a + d) , (a +2d) , (a + 3d) , (a + 4d) , (a + 5d) , (a + 6d) and (a + 7d)

Sum of all angles in octagon = 1080 = 8a + 28d

Avg of (a + 7d) and (a + 6d) = 153 => 2a + 13d = 306

solving both , a = 114 , d = 6

=> Avg of smallest two = (2a + d)/2 = 117

IF both 117 and 88 are factors of the no.a*47*64*1313, then what is the smallest possible value of a?
A)10296
B)429
C)99
D)9

99 is the answer.
a * 47 * 8 * 8 * 13 * 101 is the number.
as 88 and 117 are two factors i.e 8*11 and 13*9 are two factors, 11 and 9 are missing in the given number so 11*9 = 99 will be a.

When we perform a 'digit slide' on a number, we move it unit's digit to the fornt of the no. For example the result of digi slide on 6471 is 1647.Let z be the smallest positive integer with 5as its unit digit such that the resultof a digit slideon the no.equal to 4times the no. how many digit will z have?
A)7
B)6
C)4
D)3

6 digits

128205*4= 512820

A cow was standing on a bridge, 5m away from the middle of the bridge. A train was coming towards the bridge from the ends nearest to the cow.Seeing this cow ran towards the the train and managed to escape when the train was 2m away from bridge.If it had run in the opposite direction, it would hit by the train 2m before the end of the bridge.What is the lenght of the bridge in meters assuming the speed of the train is 4times that of cow?
A)32 B)36 C)40 D)cant be determined

32 mtrs
if x is distance of train from bridge and 2l is length of bridge, s is speed of cow, then

(x-2)/4s =(l-5)/s
4l-a=18 ..... (1)
also
(a+2l-2)/4s = (l+5-2)/s
a-2l=14 .....(2)

adding (1) and (2)
2l=32 mtrs

Compute the no. of distinct ways in which 56 toffees can be distributed to A,B,C,D,E so that no person receives less than 10 toffees?
A)10c6 B)10c5 C)6^3

distribute 10 toffes to each first: after that 6 toffes (r),5 persons(n)
(n+r-1)C(r-1)=10C5

there is cask full of milk.E litres are drawn from the cask,it is then filled with water.this process is repeated.now the ratio of milk to water is 16:9.What is the capacity of the cask in litres?

5E

if x is capacity of cask, then
initially
x ltr milk .. 0 ltr water
after first draw and water filling by E ltrs,
x-E ltr milk and E ltr water

after 2nd draw and water filling by E ltrs,
x- [2E-(E^2/x)] and 2E -(E^2)/x ltr water

As per condition

x- [2E-(E^2/x)] /[2E -(E^2)/x] = 16/9

solving, we get
x=5E

There are 'n' temples and each temple is having 'one' pond infront of it?
At first we are having 'x' flowers,before entering in to the temple
we have to be immersed in pond, if we immersed the count of flowers
will be doubled, at each of the temple we should keep 'y' flowers and
we should move to next temple?
At last you should come out with zero flowers at the end of all temples.
Find the x(number of flowers you take at first) and
y(number of flowers you will keep in temple)?

Hint: Answers will be in terms of 'n'?

very old puzzle.

Number of flowers = (2^n)-1

number of flowers kept at each temple = 2^n

Amit can complete a piece of work in 2.25 days.badri takes double the time taken by amit.chetan takes double dat of badro,and das takes double dat of chetan to complete the same task.They are split into two groups(of one or more persons)such that the differnce b/w the times taken by the two groups to complete the same work is minimum.what could be the compostion of the faster group?
a)amit and das
b)badri nd chetan
c)badri,chetan nd das
d)amit alone

Amit alone is faster group.
other group is made of badri , chetan and Das.
Amit can complete a piece of work in 2.25 days.
so Amit's one day work = 4/9
Badri's one day work = 4/18
Chetan's one day work = 4/36
Das's one day work = 4/72
(B+C+D)'s one day work = 4/18+4/36+4/72= (4/9)*(1/2+1/4+1/8) = (4/9)*(7/8) i.e. 7/8 times of Amit's one day work.

a basketball is dropped from a height of 20 feet.it bounces back each time to a height which is one half of the height of the last bounce.how far approximatesly will the ball have to be travelled before it comes to rest?

A)30FT.
b)40
C)60
d)CANNOT B DETERMINED

1st time = 20 ft
2nd time = 10ft down + 10 ft up
3rd time = 5ft up + 5ft down
and so on

Total distance travelled = 20 + (10 + 10) + (5 + 5) + (2.5 + 2.5) + . . .
= 20 + (10 + 5 + 2.5 + ...) + (10 + 5 + 2.5 + ...)
Assuming the ball comes to rest at infinity,

Total distance travelled = 20 + [10/ (1 - 0.5)] + [10/ (1 - 0.5)]
= 20 + 20 + 20 = 60

Dream teams are formed by television viewers by selecting five players from the sixteen players namely F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,F13,F14,F15 and F16.The players belong to exactly one of the three teams namely Chesla,Liverpool and United.Every Dream Team must have two players each from Chesla and Liverpool and one player from united.Following information is

provided
a)F12 is not from United
b)F7 is from Chesla.
c)F2 and F9 are from liverpool.
d)the 'match fee' of each player belonging to chesla ,liverpool, and united is Euro 800.Euro775 and euro 725 match played respectively.
8 such dearm teams were formed are mentioned below...
team1=F3,F9,F7,F1,F12
Team2=F12,F11,F13,F6,F9
Team3=F6,F3,F5,F11,F7
Team4=F2,F10,F7,F6,F1
Team5=F1,F4,F16,F11,F10
Team=F6,F3,F7,F15,F12
Team=F2,F9,F12,F14,F15
Team=F4,F8,F13,F11,F10

Q1)in dream team 6 name the united player?
1)F3 2)F6 3)F12 4)F15
Q2)how many players belong to Chesla from the given sixteen players?
1)4 2)5 3) 6 4)7
Q3)In team 8 who are from liverpool?
a)F4,F8
b)F10,F11
c)F11,F13
d)F4,F11
Q4)what is the total fees per match (in Euros) for team ?
1)3875
2)3825
3)3800
4)none of these
Q5)which of the following combinations have only Liverpool players?
a)F13,F3
b)F3,F16
c)F16,F14
d)F14,F2

Q5)which of the following combinations have only Liverpool players?

b)F3,F16

Players of Chelsea are F7,10,11,12,14.
Players of Liverpool are F2,3,4,6,8,9,16

mark A:if question can be answerd by using one of the statement alone.but can not be answerd by using other staments alone.
Mark B:if the questions can be answered by using either statement alone.
Mark C:if question can be aneswered by using both statements together,but can nt be answered using either statment alone.
Mark D:if question cannot be answered even by using both statment together.
1Q)

ABCD are four points in a plane such that ABd and DBC form two triangles.Area of ABD is 10 units and area of ADC is 20 units.What is the ration of lengths(AD/DC)?
i)points ADC are collinear
ii)DB is 5 units long and is perpendicular to AC.
2)
What was the percentage profit in selling a liter of milk?
i)5 liter milk was sold at cost price after adding 20% of water.
ii)Milk was perchaged at RS.16 per liter.

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A:if question can be answerd by using one of the statement alone.but can not be answerd by using other statements alone.
here qn can be answered by statement 1 alone but can not be answerd by using other statements alone.

wht is remainder when 128^1000 is divided by 153..?

128^1000/153 = 128^1000/17.9

now when 128^1000 is divided by 17 rem

2^7000/17 = 16^1750/17 = (17-1)^1750/17 so rem = 1

it can be represented by 17a +1.....(1)

when 128^1000 is divided by 9

2(3*333 + 1)mod9 = -1*2mod9 = 7mod9 so rem = -1.2 = -2 = 7

it can be represented by 9b + 7.....(2)

equating (1) and (2)

17a+1=9b+7 => 9(b-a) = 8a - 6
this is true for a = 3

so remainder = 17*3 +1 = 52

you are given a number Q < 200. you have to calculate sum of All Q such that when Q divided by 5 or 7 gives remainder 2?

n that case , sum of All Q such that when Q divided by 5 or 7 gives remainder 2 =
2+37+72+107+142+177=537

you are given number N.give 2*N has 28 factor and 3*N has 30 factor.calculate how many factor will be in 6*N..?

35 factors.
N= 2^5 *3^3
2N= 2^6 * 3^3 .. so factors are 7*4=28
3N= 2^5 *3^4... factors are 6*5=30
6N = 2^6*3^4.. factors are 7*5=35

If m and n are two positive integers, then what is the value of mn?

(1)7m + 5n= 29
(2) m + n= 5

7m + 5n = 29
m + n = 5(multiply both sides by 7)
subtract equation second from first,we get
7m + 5n =29
7m + 7n = 35
n = 3
substitute value of n in any equation.
m = 2
mn = 6.

the circle O having a diameter of 2cm, has a square inscribed in it.each side of the square is then taken as a diameter to form 4 smaller circles O'.find the total area of all four O' circles which is outside the cirle O.
a)2
b)pi-2
c)2-pi/4
d)2-pi/2

ns is (a)2.

Well area of cirle O=pi.(Plzz dnt ask How!!!)

Nw the diameter of circle is also the diagonal of the square.
Hence each side of square will be sqrt(2).

=>Area of square=2

since each side of square is also the diameter of other 4 circles.
Hence summation of area of 4 circles=2*pi.....(1)

If u hav drwan its fig u'll find that to obtain the required ans u hav to
subtract the area of 4 semi-circles formed on the side of the square from the each of the small

portion outside the square.

to get that area of small portion =area of circle O-area of square
=pi-2.....(2)

this small portion has to be substracted from the four semi-circles.
Hence, area of 4 semi-circles=2*pi/2= pi.....[from (1)]

required ans=total area of 4 semi-circles - area of small portion(from (2))
=pi-(pi-2)
=2.
Kudos..:-))

Let Sn denote the sum of first n terms of an A.P.. If S2n = 3Sn, then the ratio S3n/Sn is equal to
(a) 4 (b) 6
(c) 8 (d) 10

We know that Sn = n(n+1)/2
now it is given that
S2n = 3Sn
=> 2n(2n+1)/2 = 3n(n+1)/2
=> 2(2n+1) = 3(n+1)
=> 4n+2 = 3n+3
=> n = 1
then S3n/Sn = [3n(3n+1)/2]/[n(n+1)/2] = 3*4/1*2 = 6

6 Bangles each of 4cm in daimeter,what is ther minimum diameter of plate required so that each bangles are kept without overlapping(bangles touching each other)?

one bangle at the center and the remaining 5 surrounding them.... so radius of the center + the diameter of the outer bangle....
so 4+2=6cms

find the number of ways you can fill a 3x3 grid(with four courners defined as a,b,c,d) if u have 3 white marbles and 6 black marbles

irst calculate area of the grid = 9. Now we have to arrange 3 white marbles in 9 places = 9c3 = 84 ways [ans]. You dont have to arrange black marbles again.
If you want to arrange black marbles first, you still get same answer 9c6 = 84.