Reasoning

41. **Four children A, B, C and D are having some chocolates each.**
A gives B as many as he already has, he gives C twice of what C already has and he gives D thrice of what D already has.
Now, D gives (1/8)th of his own chocolates to B.
Then A gives 10% chocolates he now owns to C and 20% to B.
Finally, all of them have 35 chocolates each. What is the original number of chocolates each had in the beginning?

A A - 110, B - 10, C - 10, D - 10

B A - 90, B - 20, C - 20, D - 10

C A - 70, B - 25, C - 25, D - 20

D A - 125, B - 5, C - 5, D - 5

Answer: A

Explanation:
Let A, B, C, D have a, b, c, d chocolates respectively initially.

D gets thrice as many as he already has from A which makes a total of 4d chocolates with D.

He gives one-eigth of that to B which leaves D with 3.5d Chocolates.

Now 3.5 d = 35 => **d = 10**

Now, A has given b, 2c, 3d chocolates to B, C, D respectively at first which left him with (a-b-2c-3d) chocolates.

Then he gave 10% of the remaining chocolates to C and 20% to B.

He finally has 0.7(a-b-2c-3d) chocolates.

0.7(a-b-2c-3d) = 35

=>(a-b-2c-3d) = 50 = k (say)

C got 2c chocolates at first and then again 10% of 'k' from A.

C finally has 3c + 0.1k = 35

=> **c = 10**

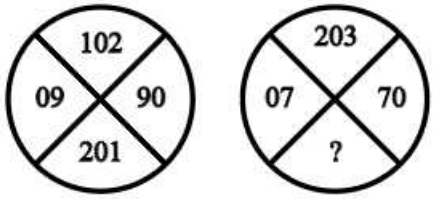
B got b chocolates at first and then again 20% of 'k' from A and 0.5d from D.
B finally has 2b + 0.5d + 0.2k = 35

=> **b = 10**

For A, 0.7(a-b-2c-3d) = 35

=> **a = 110**

42. **There are two similar figures below with some numbers. The left one is complete where as one number is missing in the right one. Find a suitable number to fill in place of the question mark.**



A 280

B 303

C 362

D 382

Answer: A

Explanation:
102+9+90 = 201

203+70+7 =280

43. **Complete the following series by replacing the ? :**
(TBLD, VEPI, XHTN, ?)

A ZJVP

B ZVJP

C ZKXS

D ZKXP

Answer: C

Explanation:
In the 3 given terms, the 1st letters have 1 letter between them -> T UV , VWX

the 2nd letters have 2 letters between them -> BCDE , EFGH

Similarly, the 3rd letters have 3 letters between them and the 4th letters have 4 letters between them.

So, the next term of the series will be ZKXS.

44. **In a cricket team, three batsmen Ricky, Sachin and Brian are the top three run-scorers in any order. Each of them gives two replies to any question, one of which is true and the other is false, again, in any order. When asked about who the top scorer was, following were the replies they gave:**
Sachin : I got the top score. Ricky was second.
Brian : I got the top score. Sachin was second.
Ricky : I got the top score. Sachin was third.
Which of the following is the correct order of batsmen who got the top score, second best and third best score respectively?

A Brian, Ricky, Sachin

B Brian, Sachin, Ricky

C Ricky, Sachin, Brian

D Sachin, Brian, Ricky

Answer: A

Explanation:
Let us name the statements-

S1: I got the top score.

S2: Ricky was second.

B1: I got the top score.

B2: Sachin was second.

R1: I got the top score.

R2: Sachin was third.

Case 1:

Let S1 be true. That means B1 and R1 are false because only one of them can be 1st.

If S1 is true, S2 has to be false; meaning Ricky was 3rd.

So, the order we get as of now is Sachin, Brian, Ricky.

R2 says Sachin was 3rd but both R1 and R2 cannot be false. So, this case is rejected.

Case 2:

Let R1 be true. Then R2 is false meaning Sachin was second. So the order we get as of now is Ricky, Sachin, Brian.

If R1 is true, S1 and B1 are false. If S1 is false, S2 has to be true. But Ricky cannot be second.

So, this case is also rejected.

Case 3:

Let B1 be true. Then B2 is false meaning Sachin was third. So the order we get as of now is **Brian, Ricky, Sachin**.

Both R1 and S1 are false as B1 is true. R2 and S2 are true and support the order we got.

45. **60 employees in an office were asked about their preference for tea and coffee. It was observed that for every 3 people who prefer tea, there are 2 who prefer coffee. For every 6 people who prefer tea, there are 2 who drink both of tea and coffee. The number of people who drink both is the same as those who drink neither.**
How many people drink both tea and coffee?

A 10

B 12

C 14

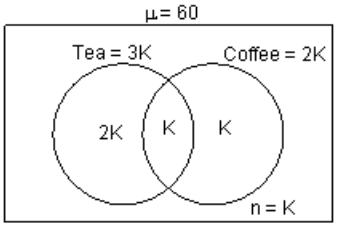
D 16

Answer: B

Explanation:
Let number of people who prefer tea =3k

those who prefer = 2k

those who like both =k



5k = 60

=> k=12

46. **A clock strikes once at 1 o'clock, twice at 2 o'clock and so on. If it takes 6 seconds to strike at 3 o'clock, how much time will it take to strike at 9 o'clock?**

A 24 seconds

B 18 seconds

C 20 seconds

D None of these

Answer: A

Explanation:
The clock strikes thrice at 3.

There are two intervals between 3 strikes. For nine strikes there will be 8 intervals.

2 intervals take 6 seconds. => 8 intervals will take 24 seconds.

Instructions [47 - 48]

E-1, E-2 and E-3 are three engineering students writing their assignments at night. Each of them starts at a different time and completes at a different time. The digit in their name and the order of their starting and completing the assignment is certainly not the same. The last student to start is the first to complete the assignment.

47. **Who is the first student to start writing the assignment?**

A E-1

B E-2

C E-3

D Cannot be decided

Answer: C

Explanation:
E3 cannot start last as his name has number 3 and E1 cannot finish 1st as his name has number 1. So the one starting last and finishing 1st will be E2. Then E3 will start 1st as E1 cannot.

48. **Who is the last student to complete the assignment?**

A E-1

B E-2

C E-3

D Cannot be decided

Answer: A

Explanation:
E3 cannot start last as his name has number 3 and E1 cannot finish 1st

as his name has number 1. So the one starting last and finishing 1st

will be E2. Then E3 will start 1st as E1 cannot. E3 cannot finish 3rd, so E1 will.

Instructions [49 - 50]

A, B and C are three students from Don School and P, Q and R are three students fro Elite School. Q is brighter than R but duller than the Don School student who is brighter than A. The same Don School student is duller than P but is brighter than C.

49. **Who is brightest amongst all?**

A B

B P

C R

D Cannot be decided

Answer: B

Explanation:

From the given statements, let us rank students from brightest to dullest from left to right. Let the Doon school student be K.

From the first condition, we get K,A,Q,R in order.

From the second condition, we get P,K,C,A,Q,R.

So P is the brightest.

50. **Who is the dullest amongst the three students from Elite School?**

A P

B Q

C R

D Cannot be decided

Answer: C

Explanation:
From the given statements, let us rank students from brightest to dullest from left to right. Let the Doon school student be K.

From the first condition, we get K,A,Q,R in order.

From the second condition, we get P,K,C,A,Q,R.

So R is the dullest.

51. **When Rafael entered the class, there were already 10 students in the class. 5 students entered the class between Roger and Rafael. Total 10 students entered after Roger. Exactly how many students are in the class finally?**

A 15

B 25

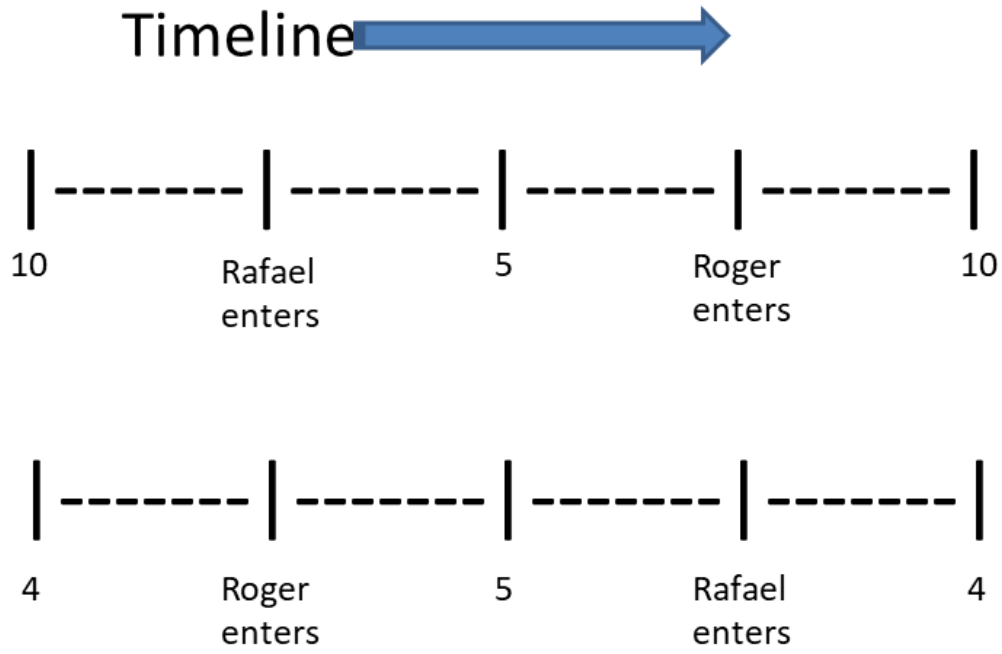
C 27

D Cannot be decided

Answer: D

Explanation:

Using the given conditions, we get 2 possibilities:



Instructions [52 - 54]

Arijit, Biplab, Chintan, Debashish, Elangovan, Frederick, Gautam and Himadri are sitting around a circular table, Some information about the order in which they are sitting is available as follows:
(1) Debashish is sitting opposite to Himadri and to the immediate right of Gautam.
(2) Elangovan is sitting to the immediate right of Biplab.
(3) Arijit is sitting opposite Chintan who is not immediately next to Frederick on either side.

52. **Who is sitting to the immediate right of Himadri?**

A Arijit

B Debashish

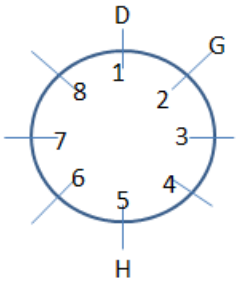
C Elangovan

D Frederick

Answer: A

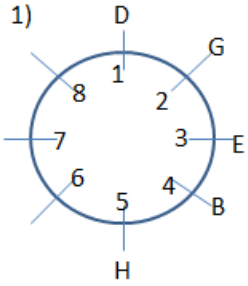
Explanation:

Using statement 1...

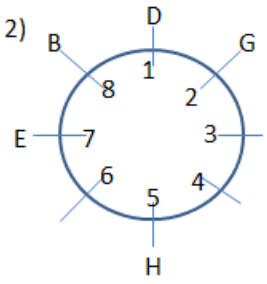


Based on statement 2, there are 3 possibilities:

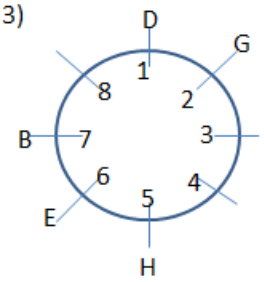
1)



2)

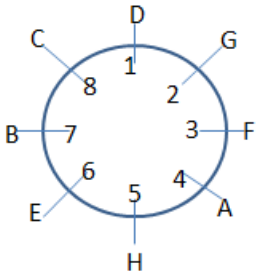


3)



On reading statement 3, cases 1) and 2) get rejected because we cannot put A opp. to F.

Using all 3 statements, we finally get:



53. **Who is sitting opposite Biplab?**

A Arijit

B Debashish

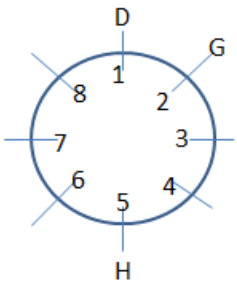
C Frederick

D Himadri

Answer: C

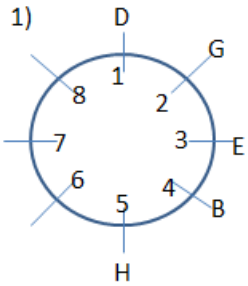
Explanation:

Using statement 1...

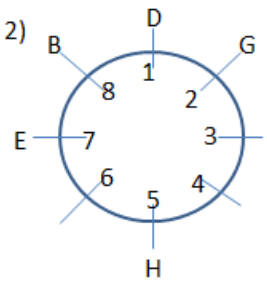


Based on statement 2, there are 3 possibilities:

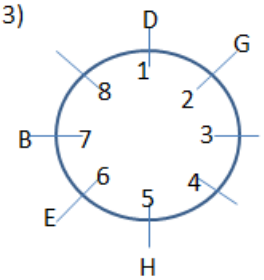
1)



2)

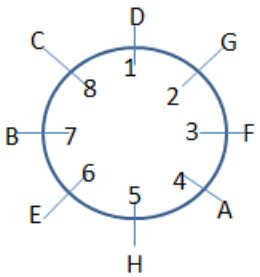


3)



On reading statement 3, cases 1) and 2) get rejected because we cannot put A opp. to F.

Using all 3 statements, we finally get:



54. **Who is to the immediate right of Chintan?**

A Arijit

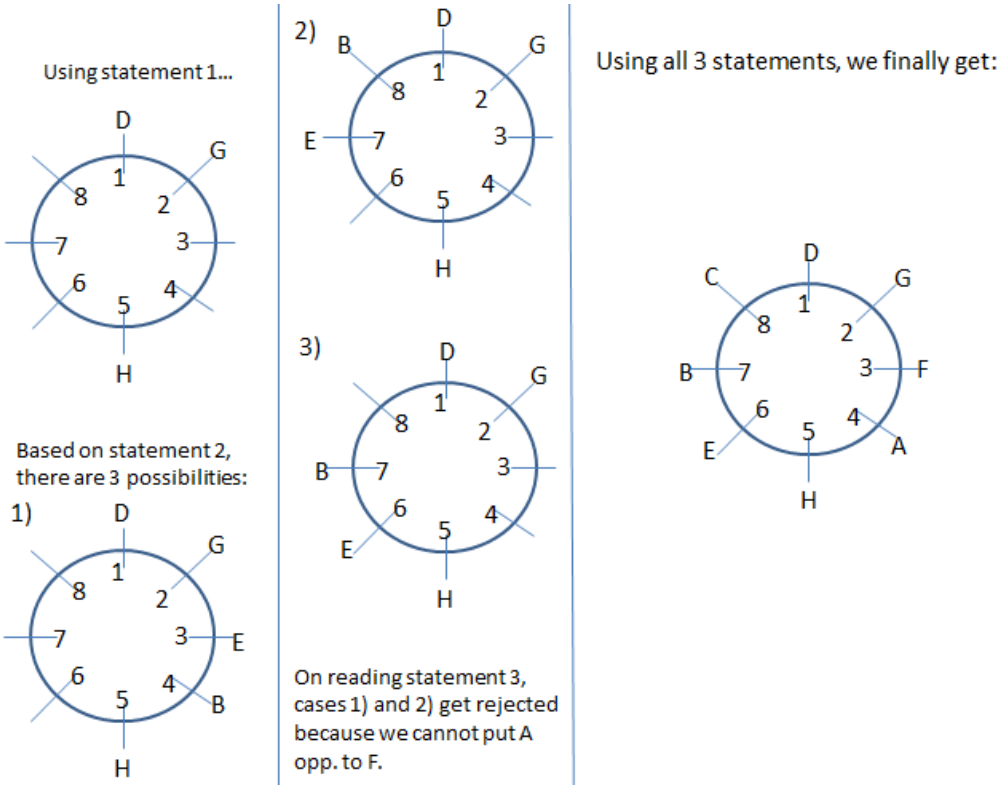
B Biplab

C Elangovan

D Himadri

Answer: B

Explanation:



55. **Select the alternative that logically follows the two given statements:**
Some rocks are not tables.
Some rocks are balloons.

A Some tables are not balloons

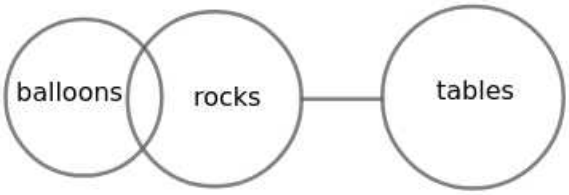
B Some tables are balloons

C Some balloons are not tables

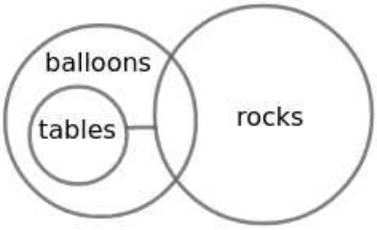
D None of the above

Answer: D

Explanation:
The basic diagram for the given statements is



I. Some tables are not balloons

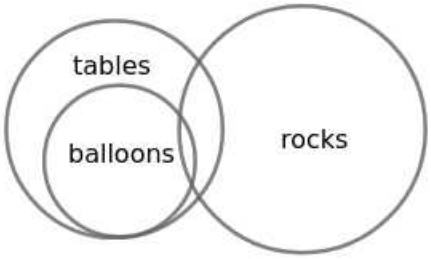


From the above possibility diagram, all tables are balloons. Hence Option A is incorrect.

II. Some tables are balloons

From the basic diagram, no table is balloon. Hence Option B is incorrect.

III. Some balloons are not tables



From the above possibility diagram, all balloons are tables. Hence Option C is incorrect.

∴ None of the above follow the given statements.

Hence, the correct answer is Option D

Instructions [56 - 57]

A, B, C, D and E sit on a long bench. C does not sit next to A or E. A and E have three persons sitting between them.

56. **Who is sitting in the middle of the bench?**

A B

B C

C D

D None of these

Answer: B

Explanation:

It is said that A and E have 3 people between them and there are 5 positions, so they both are at the ends.

A _ _ _ E

OR

E _ _ _ A

It is also said that C is not sitting next to either A or E. This means that C can occupy the middle position only.

57. **Who are sitting at the extreme ends of the bench?**

A A & E

B B & D

C C & E

D None of these

Answer: A

Explanation:

It is said that A and E have 3 people between them and there are 5 positions, so they both are at the ends.

A _ _ _ E

OR

E _ _ _ A

It is also said that C is not sitting next to either A or E. This means that C can occupy the middle position only.

Instructions [58 - 59]

Observe the chart and answer the following questions.

1 Yearly commision Earned by five Slaesmen.						
						Figures in Rupees
Year → Slaes Man ↓	1990	1991	1992	1993	1994	1995
A	27350	28500	25200	29800	24600	27000
B	26850	27900	27400	28000	28500	29000
C	26200	27900	28200	29100	29400	30000
D	27850	30040	29800	30060	29800	32000
E	28640	29000	28750	30000	29750	29700

58. **In the year 1994, the commission earned by salesman D was approximately what percent more of the commission earned by A?**

A 18

B 82.5

C 21

D 17

Answer: C

Explanation:
Commission of A in 1994 = Rs.24600

Commission of B in 1994 = Rs.29800

B's commission is more than A's by:

((29800-24600)/24600) x 100 $\approx$ 21%

59. **In the year 1993, the commission of B was approximately what per cent of the total commission earned by five salesmen that year?**

A 30

B 20

C 40

D 80

Answer: B

Explanation:
On adding up the total earnings of the 5 salesmen in 1993, we get the total amt. = Rs.146960

B's earning in 1993 = Rs. 28000

% of total earning that B earned = (28000/146960) x 100 $\approx$ 20%

60. **Find the missing numbers in the following set**

2	4	6	8	10
2	14	34	??	98

A 30

B 62

C 42

D 78

Answer: B

Explanation:
In every column of the given table, the value in Row 2 is '2 subtracted from the sq. of the corresponding value of Row 1'. So, corresponding to '8' in the 1st row, (8^2 - 2) = 62 will be the value in row 2.

61. **There are 6 volumes of books on a rack kept in order (such as, vol. 1, vol. 2 and so on). After some readers used them, their order got disturbed. The changes showed as follows:**
Vol.5 was directly to the right of vol. 2
Vol 4 has vol. 6 to its left and both were not at Vol.3's place.
Vol.1 has Vol.3 on right and Vol.5 on left.
An even numbered volume is at Vol.5's place.
Find the order in which the books are kept now, from the four given alternatives:

A 6, 3, 5, 1, 4, 2

B 4, 6, 3, 5, 1, 2

C 3, 4, 1, 6, 5, 2

D 2, 5, 1, 3, 6, 4

Answer: D

Explanation:
"Vol.5 was directly to the right of vol. 2" using this statement, we can eliminate options A, B and C.

Option D satisfies all of the given statements.

62. **All German philosophers, except for Marx, are idealists. From which of the following can the statements above be most properly inferred?**

A Except for Marx, if someone is an idealist philosopher, then he or she is German.

B Marx is the only non-German philosopher who is an idealist.

C If a German is an idealist, then he or she is a philosopher, as long as he or she is not Marx.

D Marx is not an idealist German philosopher.

Answer: C

Explanation:
Option A & B imply that Marx is not German and is an idealist philosopher which is not the correct implication.

From option D we can infer that there can be other German philosophers who are not idealists like Marx. This is the same implication as stated in the question.

Option C implies the same as given in the question.

63. **Ramaswami was studying for his examinations and the lights went off. It was around 1:00 a.m. He lighted two uniform candles of equal length but one thicker than the other. The thick candle is supposed to last six hours and the thin one two hours less. When he finally went to sleep, the thick candle was twice as long as the thin one. For how long did Ramaswami study in candle light?**

A 2 hours

B 3 hours

C 2 hours 45 minutes

D 4 hours

Answer: B

Explanation:
Assume that the initial lenght of both the candle was L and Vipul studied for X hours.
In X hours, total thick candle burnt = XL/6
In X hours, total thin candle burnt = XL/4
After X hours, total thick candle remaining = L - XL/6
After X hours, total thin candle remaining = L - XL/4
Also, it is given that the thick candle was twice as long as the thin one when he finally went to sleep.
(L - XL/6) = 2(L - XL/4)
(6 - X)/6 = (4 - X)/2
(6 - X) = 3*(4 - X)
6 - X = 12 - 3X
2X = 6
X = 3

64. **The numerator and denominator of a fraction is in the ratio 2:3. If 6 are subtracted from the numerator the value of the fraction becomes $\frac{2}{3}$ of the original fraction. The numerator of the original fraction is,**

A 16

B 21

C 18

D 30

Answer: C

Explanation:
Let the numerator be 2x and the denominator be 3x. On subtracting 6 from the numerator, we get the equation as:
$\frac{2x-6}{3x} = \frac{4}{9}$
On solving this, we get x = 9 and the numerator as 18.

65. **A person wanted to withdraw X rupees and Y paise from the bank. But cashier made a mistake and gave him Y rupees and X paise. Neither the person nor the cashier noticed that. After spending 20 paise, the person counts the money. To his surprise, he has double the amount he wanted to withdraw.**
Find X and Y. (1 Rupee = 100 Paise)

A X = 3, Y = 6

B X = 26, Y = 53

C X = 15, Y = 30

D X = 9, Y = 36

Answer: B

Explanation:
Expressing the money he wanted to withdraw in terms of paise: 100x + y

Expressing the amount the cashier gave him: 100y + x

After spending 20paise from the withdrawn money, he finds he still has double the amt, he actually wished to withdraw.

So the eqn is: (100y+x) - 20 = 2(100x+y)

=> 98y - 199x = 20 ...(1)

Only option B satisfies eqn 1 among the given options.

66. **A drawer contains 10 black and 10 brown socks which are all mixed up. What is the fewest number of socks you can take from the drawer without looking and be sure to get a pair of the same color?**

A 7 pairs

B 7 pieces only

C 10 pieces only

D 3 pieces only

Answer: D

Explanation:
For this, we have to consider the worst possible case.

Suppose we get a black piece in the 1st pick and then a brown one in the 2nd pick.

In the 3rd pick, we will either get a black one or a brown one and when it will be placed with the previous two pieces, we will definitely get a pair of socks of the same colour.

67. **A placement company has to assign 1000 SW personnel who are skilled in Java and Dot Net to a prospective outsourcing company. He finds that 750 are having Dot Net skills and 450 have Java skills. Some have skills in both Java and Dot Net. Find the numbers who have skills in both Java and Dot Net.**

A 250

B 200

C 350

D 100

Answer: B

Explanation:
If 750 are skilled in Java, 250 are skilled only in DotNet. Of the 450 who are skilled in DotNet, we just found out that 250 are skilled only in DotNet, meaning that rest 200 out of the 450 are skilled in both.

68. **All good athletes who want to win are disciplined and have a well balanced diet. Therefore, athletes who do not have well balanced diets are bad athletes. Based on the sentence above which of the statement below strongly supports the view :**

A No bad athlete wants to win.

B No athlete who does not eat a well balanced diet is good athlete.

C Every athlete who eats a well balanced diet is good athlete.

D All athletes who want to win are good athletes.

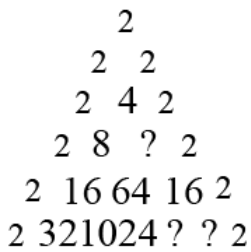
Answer: B

Explanation:
Bad athletes do not have well-balanced diets. It doesn't;t mean they don't want to win. A can be ruled out.

good athletes have a well-balanced diet. It doesn't imply all those who eats a well-balanced diet are good.. C can be ruled out.

D hasn't been mentioned.

69. **The numbers in these series are arranged in a triangle which has a logic as shown. Find the missing numbers shown as (?) from the choices given below:**



A {16, 32, 64}

B {8, 1024, 32}

C {24, 1024, 64}

D {16, 320, 64}

Answer: B

Explanation:
In the 3rd row, the second element i.e. 4 comes as the product of the 2's in the row above. Similarly, second element of the 4th row i.e. 8 comes as the product of the 2 and the 4 above it.

Using this pattern, the 3 '?' will be 8, 1024 and 32.

70. **If for a particular value of the variable x, the following holds good, $17 = {}^{17x}_{(1-x)}$, then compute the value of (2x)*x.**

A 17

B 1

C 2

D $\frac{1}{2}$

Answer: D

Explanation:
Solving the eqn:

$$\frac{17x}{1-x} = 17$$

we get x = (1/2)

So 2 x (1/2) x (1/2) = 1/2