HINTS FOR SOLVING DATA SUFFICIENCY PROBLEMS

The format of a data sufficiency problem is as follows:

(a) **Basic Data:** The question has limited available data and could include geometrical figures, graphs and algebraic statements.

e.g. (i) How old is Ravi?

(ii) Is $x^2 > x$?

(iii) What is the area of the Δ ABC?

As a rule, the basic data is insufficient to arrive at a solution.

(b) **Two Statements:** To see whether we can arrive at a solution or not, there are two separate statements succeeding the given question containing additional data which may be an aid to arrive at a possible solution. Normally, the alternatives given are as follows:

(1) : Statement (I) alone is sufficient but statement (II) alone is not sufficient to answer the question asked.

(2) : Statement (II) alone is sufficient but statement (I) alone is not sufficient to answer the question asked.

(3) : Both statements (I) and (II) together are sufficient to answer the question asked but neither of the statement alone is sufficient to answer the question asked.

(4) : Each statement is sufficient by itself to answer the question
(THOUGH THE ANSWER, IF COMPUTED, MAY BE DIFFERENT)

(5) : Statement (I) and (II) together are not sufficient to answer the question asked and additional data specific to the question is needed.

In answering the questions, you are to indicate which of these five alternatives **(1)** to **(5)** applies to the given question. You need not memorize these alternatives. They are always given before the questions.

Sometime you may be given four choices as follows:

Mark your answer as

(1) : If you can get the answer from any of the statement.

(2) : If you can the answer from either of the statement.

(3) : If you can get the answer by combining both the statements.

(4) : If neither of the statement is sufficient to answer the question.

The procedure to solve any given problem is as follows:

STEP (i) Read and comprehend the basic data. One important thing to remember is never assume any other information except the basic rules and formulae.

STEP (ii) Take statement (I), combine the available data with the already existing information and check if you can arrive at a solution. DO NOT TRY SOLVING, JUST ENSURE THAT A SOLUTION CAN BE OBTAINED.

STEP (iii) Irrespective of whether a solution can be obtained from statement (I) alone, take statement (II) and check if a solution can be arrived at. REMEMBER NOT TO USE THE DATA AVAILABLE IN STATEMENT (I).

STEP (iv) This step is optional. If a solution cannot be derived from either statement (I) or statement (II) individually, **COMBINE** the data available from the two statements and check if a solution can be arrived at.

STEP (v) Select the right alternative.

Note: Always read the instructions given for DS questions before solving them.

Points not to be ignored

1. In DS questions our answer can be in "YES" or "NO". It is not necessary that our answer should always be in "YES". For example let's consider following example:-

Q. Is A son of B?
(A) C is A's brother.
(B) B has two kids C & A, one son and one daughter.

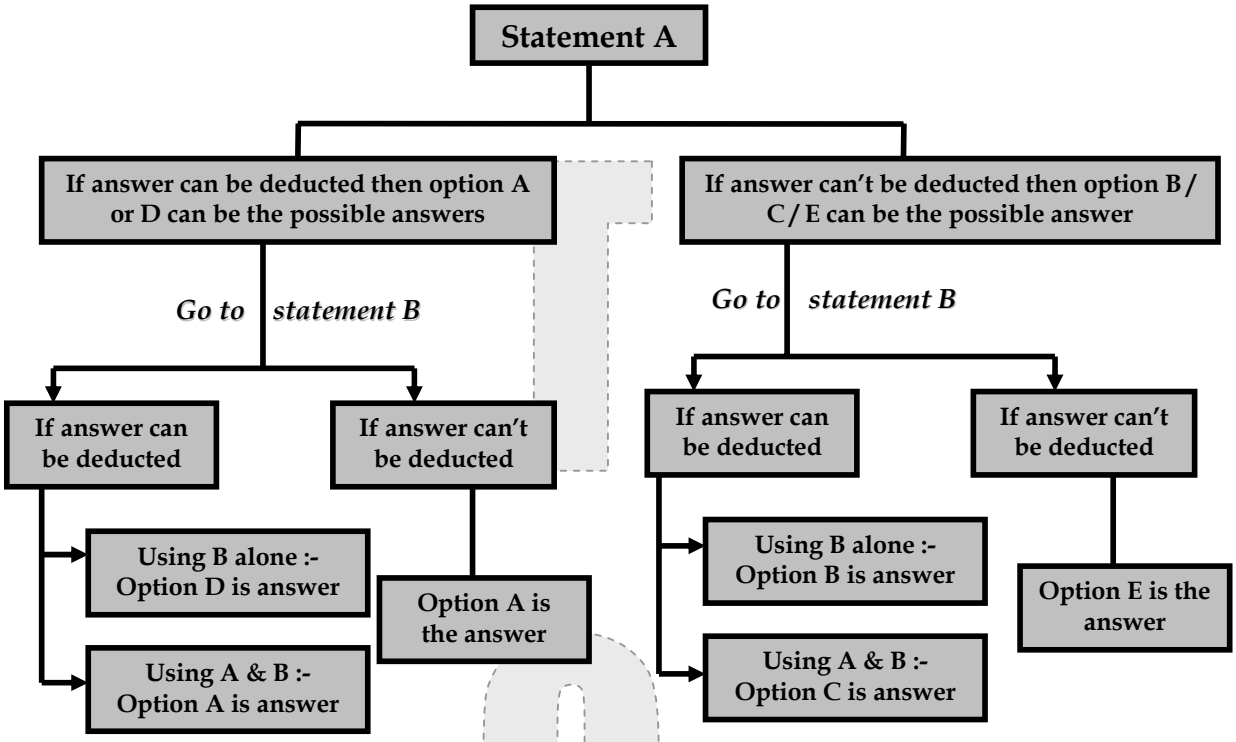
Sol. (A) statement says C is a boy and A can be a boy or girl. Now when we combine statement (A) with (B), we can be sure that C is a boy and A is a girl. So we can get the answer by combining both the statements. Please note that our answer is in terms of "NO" i.e. A is not the son of B. But still we are able to answer the question being asked.

2. Don't try to solve whole of the question. The moment you think that from this point onward question CAN BE SOLVED, mark your answer.

3. If you can get the answer from one statement alone and by combining both the statements, then your answer will be from one statement alone.

4. Always stick to your basics for these questions.

Let us understand answering a DS question with the help of a flow chart.



EXAMPLES:

1. What is the value of X, if X and Y are two distinct integers and their product is 30?

(A) X is an odd integer (B) X > Y

Sol. Statement (A) alone is not sufficient

As x can be 1, 3 or 5

Statement (B) alone is not sufficient

As x can be 10 or 6

Combing (A) and (B)

i.e. x is odd and x > y

x can be 10, 6, 30 So both statements together are not sufficient.

2. If X, Y, and Z are integers, Is X(Y+ Z) an odd integer?

(A) XYZ is an odd integer. (B) X + Y + Z is an odd integer."

Sol. (A) xyz is odd

$\Rightarrow$ x, y, z are odd

$\Rightarrow$ x (y + z) is even $\therefore$ Statement (a) alone is sufficient.

(B) x + y + z is on odd integer

$\Rightarrow$ Either x, y, z are odd or one of them is odd and other two are even

Hence x(y + z) can be either odd or even $\Rightarrow$ Alone is not sufficient.