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**GS FOUNDATION 2.0 (2023-24)**  
**BOOKLET 27**  
**Data Sufficiency**

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## 1) INTRODUCTION

Data sufficiency means checking and testing a given set of information to see if it is enough to answer a given question – answer could be affirmative or negative – we are concerned only about whether it could be found or not.

NOTE:

1. Don't waste your time in finding the answer – we only have to check for possibility of an answer and not calculate exact answer
2. Don't assume what is not given in statements
3. Statements could be from various topics like Arithmetic, geometry, linear equations, directions, puzzles, blood relations etc.
4. Read the question very carefully and make a mental note of what is required to answer the question – you can then look if the given statement(s) give the relevant sufficient information
5. Try to eliminate options

Important Pointers to revise:

1. Basic Arithmetic (all topics)
2. Linear equations – you need 'n' independent equations to find out values of 'n' variables (In other words – n independent equations are SUFFICIENT to find out values of n variables)

## 2) SAMPLE QUESTIONS

Question: In which year was Rahul born?

Statements:

1. Rahul at present is 25 years younger to his mother.
2. Rahul's brother, who was born in 1964, is 35 years younger to his mother.

Question: What will be the total weight of 10 poles, each of the same weight ?

Statements:

1. One-fourth of the weight of each pole is 5 kg.
2. The total weight of three poles is 20 kilograms more than the total weight of two poles.

Question: How much was the total sale of the company?

Statements:

1. The company sold 8000 units of product A each costing Rs. 25.
2. This company has no other product line.

The last Sunday of March, 2006 fell on which date?

Statements:

1. The first Sunday of that month fell on 5th.
2. The last day of that month was Friday.

Question: On which date of the month was Anjali born in February 2004?

Statements:

1. Anjali was born on an even date of the month.
2. Anjali's birth date was a prime number.

Question: How is X related to Y?

Statements:

1. Y says, "I have only one brother".
2. X says, "I have only one sister".

Among T, V, B, E and C, who is the third from the top when arranged in the descending order of their weights?

Statements:

1. B is heavier than T and C and is less heavy than V who is not the heaviest.
2. C is heavier than only T.

Question: Which word in the code language means 'flower'?

Statements:

1. 'de fu la pane' means 'rose flower is beautiful' and 'la quiz' means 'beautiful tree'.
2. 'de la chin' means 'red rose flower' and 'pa chin' means 'red tea'.

Question: In a certain code, '13' means 'stop smoking' and '59' means 'injurious habit'. What do '9' and '5' mean respectively in that code ?

Statements:

1. '157' means 'stop bad habit'.
2. '839' means 'smoking is injurious'.

Question: What is the shortest distance between Devipur and Durgapur?

Statements:

1. Durgapur is 20 kms away from Rampur.
2. Devipur is 15 kms away from Rampur.

Question: Vinod's and Javed's salaries are in the proportion of 4: 3 respectively. What is Vinod's salary?

Statements:

1. Javed's salary is 75% that of Vinod's salary.
2. Javed's salary is Rs 4500.

Question: How many New Year's greeting cards were sold this year in your shop?

Statements:

1. Last year 2935 cards were sold.
2. The number of cards sold this year was 1.2 times that of last year.

### 3) PYQS

CSE 2023: **Questions:** Is  $p$  greater than  $q$ ?

Statement-1:  $p \times q$  is greater than zero.

Statement-2:  $p^2$  is greater than  $q^2$ .

Which one of the following is correct in respect of the above Question and the Statements?

- (a) The Question can be answered by using one of the Statements alone, but cannot be answered using the other Statement alone.
- (b) The Question can be answered by using either Statement alone.

(c) The Question can be answered by using both the Statements together, but cannot be answered using either Statement alone.

(d) The Question cannot be answered even by using both the Statements together.

CSE 2023: For five children with ages  $a < b < c < d < e$ ; any two successive ages differ by 2 years.

**Question:** What is the age of the youngest child?

Statement-1: The age of the eldest is 3 times the youngest.

Statement-2: The average age of the children is 8 years

Which one of the following is correct in respect of the above Question and the Statements?

(a) The Question can be answered by using one of the Statement alone.

(b) The Question can be answered by using either Statement alone.

(c) The Question can be answered by using both the Statement together, but cannot be answered using either Statement alone.

(d) The Question cannot be answered even by using both the Statements together.

CSE 2023: In a party, 75 persons took tea, 60 persons took coffee and 15 persons took both tea and coffee. No one taking milk takes tea. Each person takes at least one drink.

**Question:** how many persons attended the party?

Statement-1: 50 persons took milk.

Statement-2: Number of persons who attended the party is five times the number of persons who took milk only.

Which one of the following is correct in respect of the above Question and the Statements?

(a) The Question can be answered by using one of the Statements alone, but cannot be answered using the other Statement alone.

(b) The Question can be answered by using either Statement alone.

(c) The Question can be answered by using both the Statements together, but cannot be answered using either Statement alone.

(d) The Question cannot be answered even by using both the Statements together.

CSE 2023: Consider a 3-digit number.

**Question:** What is the number?

Statement-1: The sum of the digits of the number is equal to the product of the digits.

Statement-2: The number is divisible by the sum of the digits of the number.

Which one of the following is correct in respect of the above Question and the Statements?

- (a) The Question can be answered by using one of the Statements alone, but cannot be answered using the other Statement alone.
- (b) The Question can be answered by using either Statement alone.
- (c) The Question can be answered by using both the Statements together, but cannot be answered using either Statement alone.
- (d) The Question cannot be answered even by using both the Statements together.

CSE 2023: **Questions:** Is  $(p + q - r)$  greater than  $(p - q + r)$ , where  $p$ ,  $q$  and  $r$  are integers?

Statement-1:  $(p - q)$  is positive.

Statement-2:  $(p - r)$  is negative.

Which one of the following is correct in respect of the above Question and the Statements?

- (a) The Question can be answered by using one of the Statements alone, but cannot be answered using the other Statement alone.
- (b) The Question can be answered by using either Statement alone.
- (c) The Question can be answered by using both the Statements together, but cannot be answered using either Statement alone.
- (d) The Question cannot be answered even by using both the Statements together.

CSE 2023: Consider the following statements:

1. A is older than B.
2. C and D are of the same age.
3. E is the youngest.
4. F is younger than D.
5. F is older than A.

How many statements given above are required to determine the oldest person/persons?

- (a) Only two (b) Only three (c) Only four (d) All five

CSE 2023: Consider the following including the Question and the Statements: There are 5 members A, B, C, D, E in a family.

**Question:** What is the relation of E to B?

Statement-1: A and B are a married couple.

Statement-2: D is the father of C.

Statement-3: E is D's son.

Statement-4: A and C are sisters.

Which one of the following is correct in respect of the above Questions and Statements?

- (a) Statement-1, Statement-2 and Statement-3 are sufficient to answer the Question.
- (b) Statement-1, Statement-3 and Statement-4 are sufficient to answer the Question.
- (c) All four statement together are sufficient to answer the Question.
- (d) All four statements are not sufficient to answer the Question

CSE 2022: Consider the Question and two Statements given below:

**Question:** Is  $x$  an integer?

**Statement 1:**  $x/3$  is not an integer.

**Statement 2:**  $3x$  is an integer.

Which one of the following is correct in respect of the Question and the Statements?

- (a) Statement 1 alone is sufficient to answer the Question
- (b) Statement 2 alone is sufficient to answer the Question
- (c) Both Statement 1 and Statement 2 are sufficient to answer the Question
- (d) Both Statement1 and Statement 2 are not sufficient to answer the Question

CSE 2022: Consider the Question and two Statements given below:

**Question:** What is the age of Manisha?

**Statement-1:** Manisha is 24 years younger than her mother.

**Statement-2:** 5 years later, the ages of Manisha and her mother will be in the ratio 3: 5.

Which one of the following is correct in respect of the Question and the Statement?

- (a) Statements-1 alone is sufficient to answer the Question
- (b) Statement-2 alone is sufficient to answer the question



- (c) Both Statement-1 and Statement-2 are sufficient to answer the Question
- (d) Both Statement-1 and Statement-2 are not sufficient to answer the Question

CSE 2022: Two Statements S1 and S2 are given below followed by a Question:

S1:  $n$  is a prime number.

S2:  $n$  leaves a remainder of 1 when divided by 4.

Question: If  $n$  is a unique natural number between 10 and 20, then what is  $n$ ?

Which one of the following is correct in respect of above Statements and the Question?

- (a) S1 alone is sufficient to answer the Question.
- (b) S2 alone is sufficient to answer the Question.
- (c) S1 and S2 together are sufficient to answer the Question, but neither S1 alone nor S2 alone is sufficient to answer the Question.
- (d) S1 and S2 together are not sufficient to answer the Question

CSE 2022: Two Statements S1 and S2 are given below with regard to two numbers followed by a Question:

S1 : Their product is 21.

S2 : Their sum is 10.

Question: What are the two numbers? Which one of the following is correct in respect of the above Statements and the Question?

- (a) S1 alone is sufficient to answer the Question.
- (b) S2 alone is sufficient to answer the Question.
- (c) S1 and S2 together are sufficient to answer the Question, but neither S1 alone nor S2 alone is sufficient to answer the Question.
- (d) S1 and S2 together are not sufficient to answer the Question.

CSE 2021: Two Statements S1 and S2 are given below with regard to four members P, Q, R and S followed by a Questions:

S1: R is greater than P as well as Q.

S2: S is not the largest one.



Among four numbers P, Q, R and S, which one is the largest? Which one of the following is correct in respect of the above Statements and the Question?

- (a) S1 alone is sufficient to answer the Question.
- (b) S2 alone is sufficient to answer the Question.
- (c) S1 and S2 together are sufficient to answer the Question, but neither S1 alone nor S2 alone is sufficient to answer the question
- (d) S1 and S2 together are not sufficient to answer

CSE 2019: Q. A five-storeyed building with floors from 1 to V is painted using four different colours and only one colour is used to paint a floor

Consider the following statements:

1. The middle three floors are painted in different colours.
2. The second (II) and the fourth (IV) floors are painted in different colours.
3. The first (I) and the fifth (V) floors are painted red.

To ensure that any two consecutive floors have different colours

- a. Only statement 2 is sufficient
- b. Only statement 3 is sufficient
- c. Statement 1 is not sufficient, but statement 1 along with statement 2 is sufficient
- d. Statement a is not sufficient, but statement 3 along with statement 2 is sufficient.

#### 4) COMPREHENSION

We have hard work ahead. There is no resting for any of us till we redeem our pledge in full fill we make all the people of India what destiny intends them to be. We are citizens of a great country, on the verge of bold advance, and we have to live up to that high standard. All of us, to whatever religion we may belong, are equally the children of India with, equal rights, privileges and obligations. We cannot encourage communalism or narrow mindedness, for no nation can be great whose people are narrow in thought or action.

Q. The challenge the author of the above passage throws to the public is to achieve

- (a) a high standard of living, progress and privileges
- (b) equal privileges, fulfilment of destiny and political tolerance.
- (c) spirit of adventure and economic parity

(d) hard work, brotherhood out national unity

"The individual, according to Rousseau, puts his person and all his power in common under the supreme direction of the General Will and in our corporate capacity we receive each member as an indivisible part of the whole."

Q. In the light of the above passage, the nature of General Will is best described as

- (a) the sum total of the private wills of the individuals
- (b) what is articulated by the elected representatives of the individuals
- (c) the collective good as distinct from private wills of the individuals
- (d) the material interests of the community