

GATE-2023 CRASH COURSE

GENERAL APTITUDE

DATA SUFFICIENCY

Lecture No.16

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Q.
I →
II →



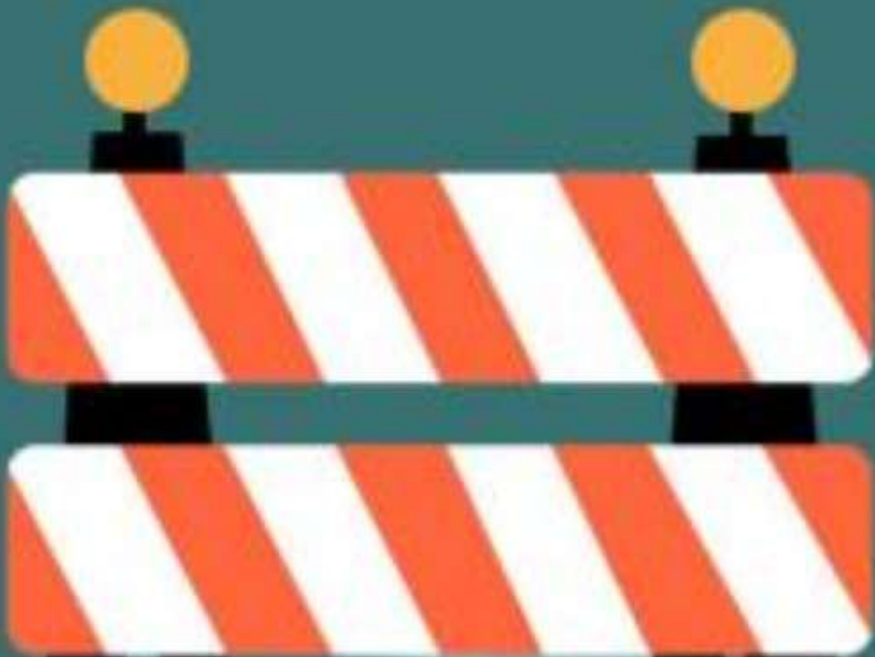
Definition and Approach



Importance of Directions



Questionnaire



DATA SUFFICIENCY

Please read the directions given carefully before answering the questions.

If I → ①

If II → ②

If I & II → ③

None → 4



Select option 'A', if statement (1) is sufficient to get the answer of given question.

Select option 'B', if statement (2) is sufficient to get the answer of given question.

Select option 'C', if statement (1) & (2) TOGETHER are sufficient to get the answer.

Select option 'D', if NONE of the statement is sufficient to get the answer.



Q.1

What is the value of 'a'?

- 1) $a^2 = 49$
- 2) $16 < a < 18$

1) $a^2 = 49$
2) $6 < a < 8$ } C

+7

(1) → A

(2) → B

(1) & (2) → C

None → D



Q.2

Is 'x' greater than 48?

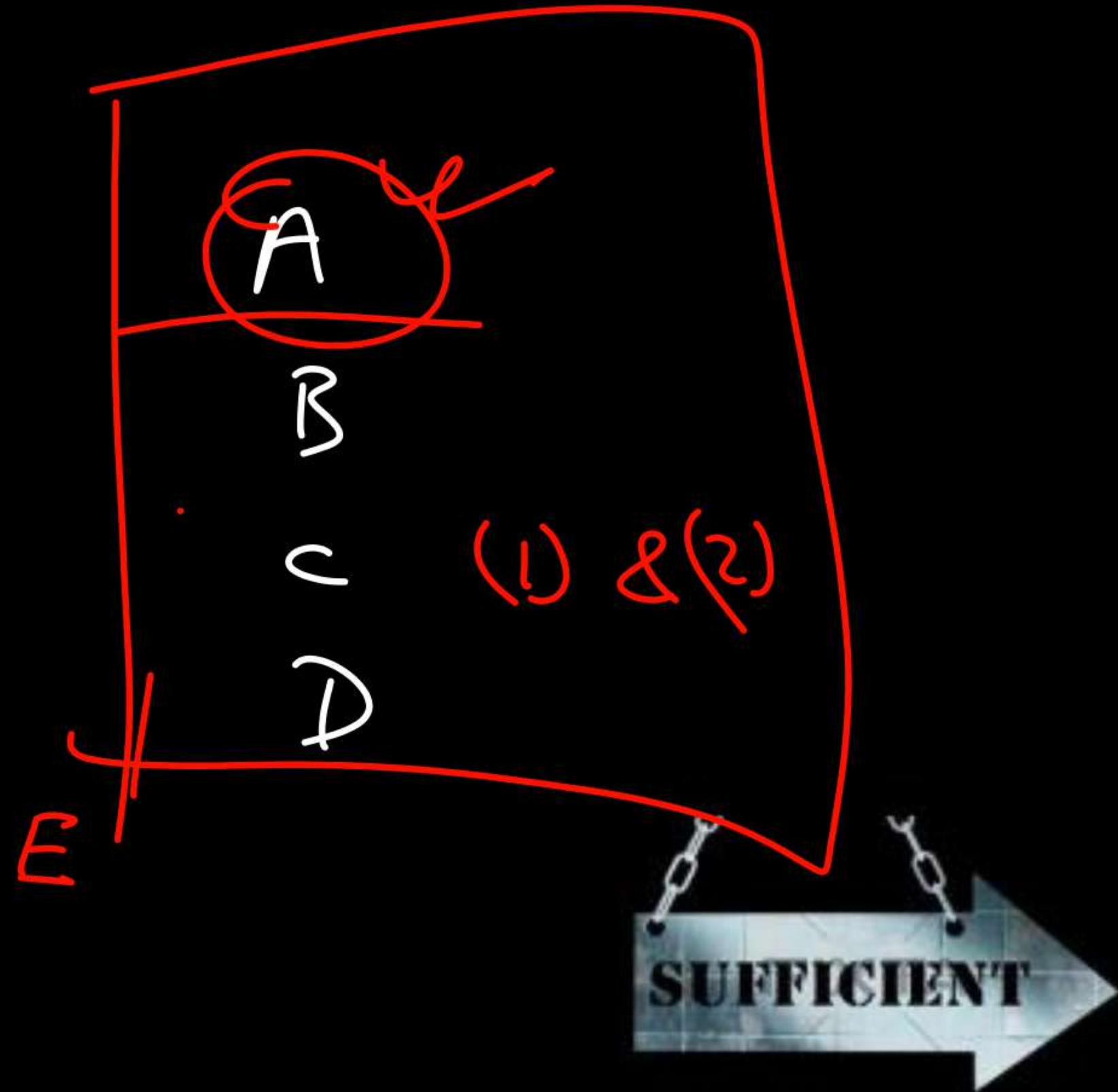
1) $x < -8$

2) $x > 1000$

No

Yes

I OR II



DIRECTIONS

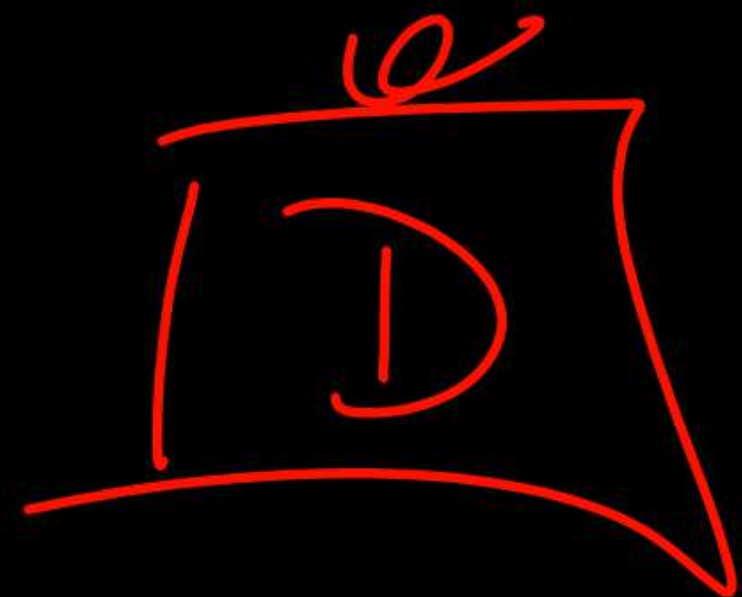
Give your answers as per the following statements

- **A :** Statement (1) alone is sufficient but statement (2) alone is not sufficient
- **B :** Statement (2) alone is sufficient but statement (1) alone is not sufficient
- **C :** Both statements together are sufficient but neither statement alone is sufficient
- **D :** Each statement alone is sufficient
- **E :** Both statements together are still not sufficient

Brainstorming 1

How much is 20 percent of a certain number?

- 1) 10 percent of the number is 5. ✓
- 2) 40 percent of twice the number is 40. ✓



$$40\% \text{ of } 2x = 40$$



Brainstorming 2



B:F

A

A thoroughly blended biscuit mix includes only flour and baking powder. What is the ratio of the number of grams of baking powder to the number of grams of flour in the mix?

- 1) Exactly 9.9 grams of flour is contained in 10 grams of the mix.
- 2) Exactly 0.3 grams of baking powder is found in 30% of the mix.

100g

0.3 : 299.7

300gm

0.1 : 9.9

0.3 : 29.7

30gm

1 : 99



Brainstorming 3

2
0.27

Is r greater than 0.27?

- 1) r is greater than 1/4. ~~X~~
- 2) r is equal to 3/10. ☒

r = 0.3

B

Yes	r = 0.25	No
0.3	Yes	0.26 No
0.35	0.28	0.27 =



Brainstorming 4

$$n^2 = 64$$

$$n = 8$$

What is the value of the sum of a list of n odd integers?

- 1) $n = 8$ ~~X~~
- 2) The square of the number of integers on the list is 64. ~~X~~

3	5	7	9	11	13	15	17	E
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9, 11, 13, 15, 17, 19, 21, 23

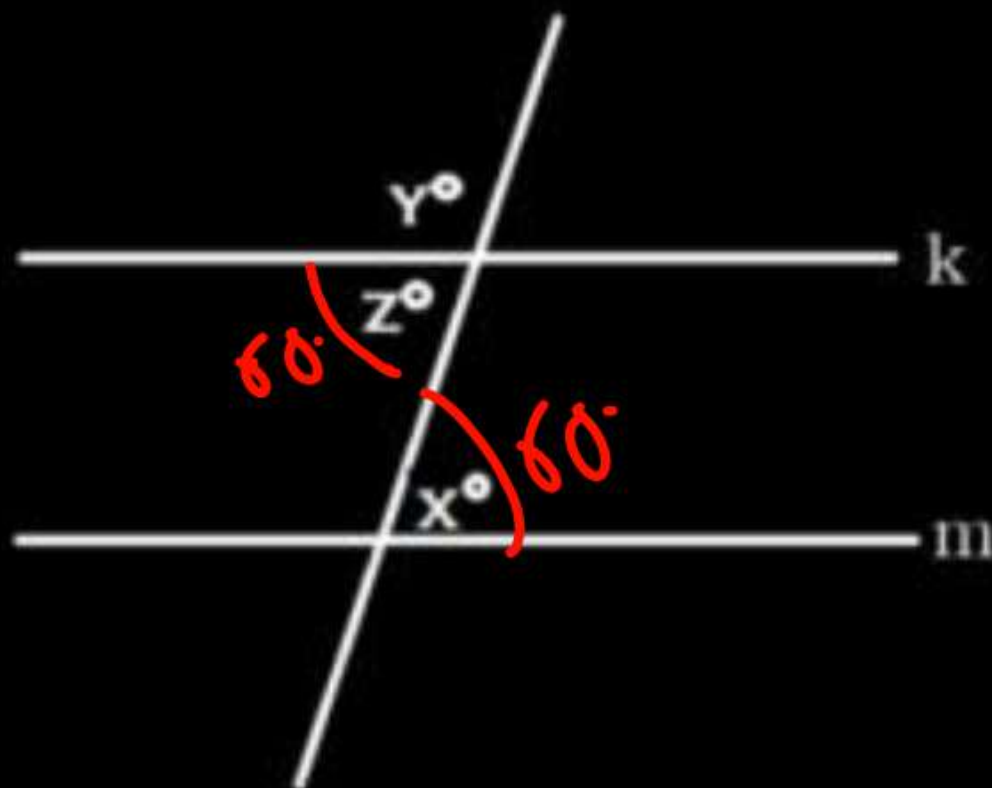


Brainstorming 5

IDEA

In the given figure, if lines k and m are parallel, what is value of x ?

- 1) $y = 120$ ✓
- 2) $z = 60$ ✓



Brainstorming 6

If r and s are positive integers, r is what percent of s ?

- 1) $r = \frac{3}{4}s$
- 2) $r \div s = 75/100$

$$\left(\frac{r}{s} \right) \times 100$$

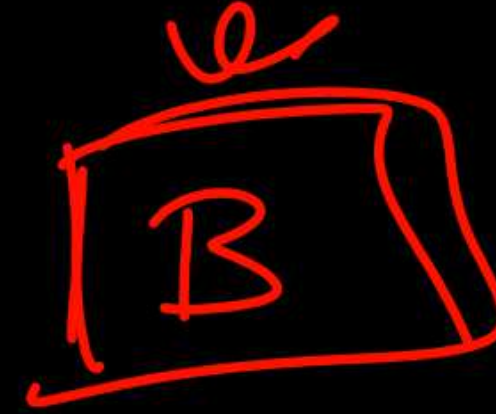
$$\frac{r}{s} = \frac{75}{100}$$

Analyze. Test. Optimize.



Brainstorming 7

If $5x + 3y = 17$, what is the value of x?



- 1) x is a positive integer.
- 2) y = 4x

$$\underline{5x + 3 \times 4x = 17}$$



Brainstorming 8

Is the integer k a prime number?

1) $2k = 16$ No

2) $1 < k < 4$

Yes

2, 3

$$2k = 16$$

$$k = \underline{8}$$

D



Brainstorming 9



Water is pumped into a partially filled tank at a constant rate through an inlet pipe. At the same time, water is pumped out of the tank at a constant rate through an outlet pipe. At what rate, in gallons per minute, is the amount of water in the tank increasing?

- 1) The amount of water initially in the tank is 200 gallons.
- 2) Water is pumped into the tank at a rate of 10 gallons per minute and out of the tank at rate of 10 gallons every $2 \frac{1}{2}$ minutes.

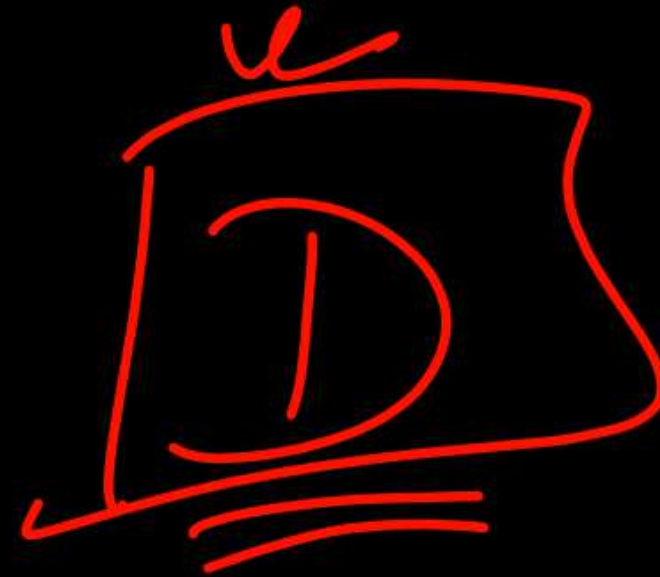


Brainstorming 10

What number is 15 percent of x?

- 1) 18 is 6 percent of x. ✓
- 2) 2/3 of x is 200. ✓

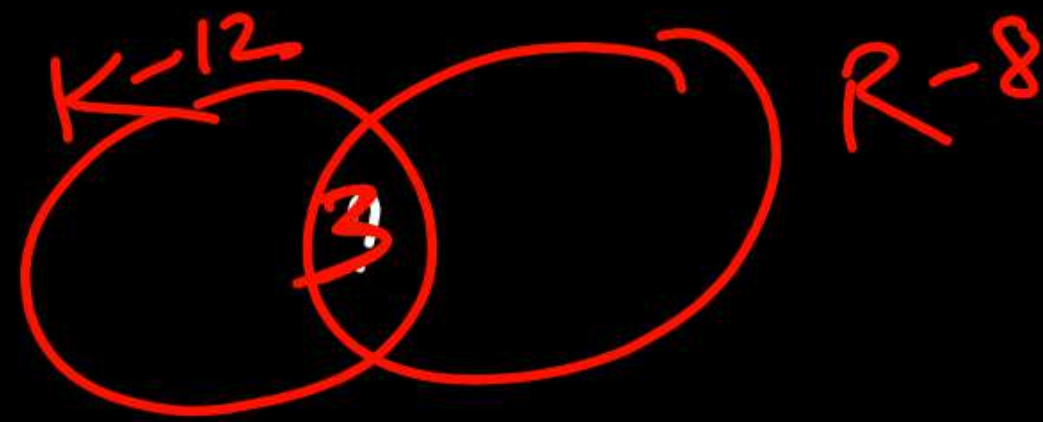
$$18 = \frac{6}{100}x$$



$$\frac{2}{3}x = 200$$



Brainstorming 11



How many people are directors of both Company K and Company R?

$$12 + 8 = 20$$
$$\underline{17}$$
$$3$$

ICR

- 1) There were 17 directors present at a joint meeting of the directors of Company K and Company R, and no directors were absent.
- 2) Company K has 12 directors and Company R has 8 directors.



Brainstorming 12



At least 17



A certain company currently has how many employees?

- 1) If 3 additional employees are hired by the company and all of the present employees remain, there will be at least 20 employees in the company.
- 2) If no additional employees are hired by the company and 3 of the present employees resign, there will be fewer than 15 employees in the company.

fewer than 18



