

**TRUNG TÂM ĐÀO TẠO LẬP TRÌNH VIÊN QUỐC TẾ
BACHKHOA-APTECH**

**GMAT TEST
SECTION 2 - DATA SUFFICIENCY**

Time - 20 minutes
15 Questions

Directions: Each of the data sufficiency problems below consists of a question and two statements, labeled (1) and (2), in which certain data are given. You have to decide whether the data given in the statements are sufficient for answering the question. Using the data given in the statements plus your knowledge of mathematics and everyday facts (such as the number of days in July or the meaning of counterclockwise), you are to fill in oval.

- A. If statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked;
- B. If statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked;
- C. If BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient;
- D. If EACH statement ALONE is sufficient to answer the question asked;
- E. If statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked and additional data specific to the problem are needed.

Numbers: All numbers used are real numbers.

Figures:

- A figure in a data sufficiency problem will conform to the information given in the question, but will not necessarily conform to the additional information given in statements (1) and (2).
- You may assume that lines shown as straight are straight and that angle measures are greater than zero.
- You may assume that the positions of points, angles, regions, etc., exist in the order shown.
- All figures lie in a plane unless otherwise indicated.

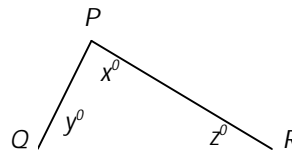
Note: In questions that ask for the value of a quantity, the data given in the statements are sufficient only when it is possible to determine exactly one numerical value for the quantity.

Example:

In $\triangle PQR$, what is the value of x ?

(1) $PQ = PR$

(2) $y = 40$



Explanation: According to statement (1), $PQ = PR$; therefore, $\triangle PQR$ is isosceles and $y = z$. Since $x + y + z = 180$, it follows that $x + 2y = 180$. Since statement (1) does not give a value for y , you cannot answer the question using statement (1) alone. According to statement (2), $y = 40$; therefore, $x + z = 140$. Since statement (2) does not give a value for z , you cannot answer the question using statement (2) alone. Using both statements together, since $x + 2y = 180$ and the value of y is given, you can find the value of x . Therefore, the answer is C.

- 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. Statements (1) and (2) TOGETHER are NOT sufficient.

Question 1

Fifty students have signed up for at least one of the courses German I and English I. How many of the 50 students are taking German I but not English I?

- 16 students are taking German I and English I.
- The number of students taking English I but not German I is the same as the number taking German I but not English I.

Question 2

A certain 4-liter solution of vinegar and water consists of x liters of vinegar and y liters of water. How many liters of vinegar does the solution contain?

- $\frac{x}{4} = \frac{3}{8}$
- $\frac{y}{4} = \frac{5}{8}$

Question 3

By what percent was the price of a certain candy bar increased?

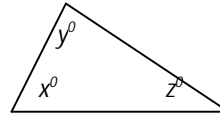
- The price of the candy bar was increased by 5 cents.
- The price of the candy bar after the increase was 45 cents.

Question 4

If a , b , and c are digits, is $a + b + c$ a multiple of 8? A digit is one of the integers 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

- The three digit number abc is a multiple of 8.
- $a \times b \times c$ is a multiple of 8.

Question 5



What is the value of z in the triangle above?

- $x + y = 139$
- $y + z = 108$

Question 6

	R	S	T	U
R	0	y	x	62
S	y	0	56	75
T	x	56	0	69
U	62	75	69	0

The table above shows the distance, in kilometers, by the most direct route, between any two of the four cities, R , S , T , and U . For example, the distance between City R and City U is 62 kilometers. What is the value of x ?

- By the most direct route, the distance between S and T is twice the distance between S and R .
- By the most direct route, the distance between T and U is 1.5 times the distance between R and T .

Question 7

If r and s are integers, is r divisible by 7?

- The product rs is divisible by 7
- s is not divisible by 7

Question 8

If x is an integer, is $(x + p)(x + q)$ an even integer?

- q is an even integer
- p is an even integer

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- D. EACH statement ALONE is sufficient.
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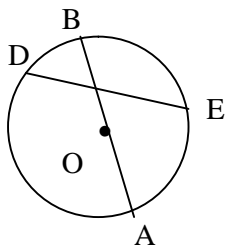
Question 9

At a certain state university last term, there were p students each of whom paid either the full tuition of x dollars or half the full tuition. What percent of the tuition paid by the p students last term was tuition from students who paid the full tuition?

- 1) Of the p students, 20 percent paid the full tuition
- 2) The p students paid a total of \$91.2 million for tuition last term

Question 10

What is the area of the circle with center O ? (AB and DE are straight lines)



- 1) $DE = 5$ inches
- 2) $AB = 7$ inches

Question 11

A sequence of numbers is given by the rule $a_n = (a_{n-1})^2$. What is a_5 ?

- 1) $a_1 = -1$
- 2) $a_3 = 1$

Question 12

50% of the people in Teetown have blue eyes and blond hair. What percent of the people in Teetown have blue eyes but do not have blond hair?

- 1) 70% of the people in Teetown have blond hair.
- 2) 60% of the people in Teetown have blue eyes.

Question 13

If $\frac{\sqrt{x}}{y} = n$, what is the value of x ?

1. $yn = 10$
2. $y = 40$ and $n = 1/4$

Question 14

What is the area of triangular region T ?

- (1) The base of triangle T is 12
- (2) The ratio of the height of T to the base of T is 3:1

Question 15

What was Mr. Smith's combined income for the years 1965–1970? In 1965 he made \$10,000.

- (1) His average yearly income for the years 1965–1970 was \$12,000.
- (2) In 1970, his income was \$20,000.

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 - D. EACH statement ALONE is sufficient.
 - E. Statements (1) and (2) TOGETHER are NOT sufficient.
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DATA SUFFICIENCY

1.C

2.D

3.C

4.E

5.A

6.B

7.C

8.E

9.A

10.B

11.D

12.B

13.D

14.C

15.A