

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.

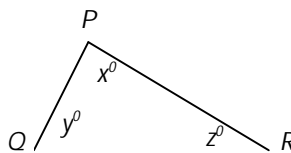
Note: In questions that ask for the value of a quantity, the data given in the statements are sufficient only when it is possible to determine exactly one numerical value for the quantity.

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.
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Question 1

If $t \neq 0$, is r greater than zero?

- 1) $rt = 12$
- 2) $r + t = 7$

- (1) No team was awarded more than a total of 6 points.
- (2) No pair of teammates finished in consecutive places among the top five places.

Question 2

If n is a positive integer, is the value of $b - a$ at least twice the value of $3^n - 2^n$?

- 1) $a = 2^{n+1}$ and $b = 3^{n-1}$
- 2) $n = 3$

Question 7

If Aaron, Lee, and Tony have a total of \$36, how much money does Tony have?

- 1) Tony has twice as much money as Lee and $\frac{1}{3}$ as much as Aaron
- 2) The sum of the amounts of money that Tony and Lee have is half the amount that Aaron has

Question 3

Is the average (arithmetic mean) of x and y greater than 20?

- (1) The average (arithmetic mean) of $2x$ and $2y$ is 48.
- (2) $x = 3y$

Question 8

If $xy < 3$, is $x < 1$?

- (1) $y > 3$
- (2) $x < 3$

Question 4

If $x + 2y + 1 = y - x$, what is the value of x ?

- 1. $y^2 = 9$
- 2. $y = 3$

Question 9

Is $x > y$?

- (1) $(x + y)^2 > 0$
- (2) x is positive

Question 5

What is the value of x ?

- 1) x is negative
- 2) $2x = -4$

Question 10

If m and n are consecutive positive integers, is m greater than n ?

- 1. $m - 1$ and $n + 1$ are consecutive positive integers.
- 2. m is an even integer.

Question 6

The participants in a race consisted of 3 teams with 3 runners on each team. A team was awarded $6 - n$ points if one of its runners finished in n th place, where $1 \leq n \leq 5$. If all of the runners finished the race and if there were no ties, was each team awarded at least one point?

Question 11

What is the value of $|x|$?

- 1. $x = -|x|$
- 2. $x^2 = 4$

- 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.
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Question 12

If n is an integer, then n is divisible by how many positive integers?

1. n is the product of two different prime numbers.
2. n and 2^3 are each divisible by the same number of positive integers.

Question 13

The price per share of stock X increased by 10 percent over the same time period that the price per share of stock Y decreased by 10 percent. The reduced price per share of stock Y was what percent of the original price per share of stock X ?

- 1) The increased price per share of stock X was equal to the original price per share of stock Y
- 2) The increase in the price per share of stock X was $\frac{10}{11}$ the decrease in the price per share of stock Y

Question 14

How old is Jim?

- 1) 8 years ago Jim was half as old as he is now
- 2) 4 years from now Jim will be twice as old as he was 6 years ago

Question 15

Of the 230 single-family homes built in City X last year, how many were occupied at the end of the year?

- 1) Of all single-family homes in City X , 90 percent were occupied at the end of last year
- 2) A total of 7,200 single-family homes in City X were occupied at the end of last year

- A. Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
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 - 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.
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Data Sufficiency

1. C

2. A

3. A

4. B

5. B

6. A

7. A

8. A

9. E

10. A

11. B

12. D

13. D

14. D

15. E