

Data Sufficiency

Directions

Each of the following data sufficiency problems 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 blacken space)

- 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.

Note: 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). **All numbers used are real numbers.**

1. What was John's average driving speed in miles per hour during 15 minutes travel
 - 1) He drove 10 miles during this interval.
 - 2) His maximum speed was 50 miles per hour and his minimum speed was 35 miles per hour during this interval.
2. Is n an integer greater than 4?
 - 1) $3n$ is a positive integer.
 - 2) $n/3$ is a positive integer.
3. Is $x - y > r - s$?
 - 1) $x > r$ and $y < s$.
 - 2) $y = 2, s = 3, r = 5$ and $x = 6$.
4. If x and y are nonzero integers, is x/y an integer?
 - 1) x is the product of 2 and some other integer.
 - 2) There is only one pair of positive integers whose product equals y .
5. Is quadrilateral Q a square?
 - 1) The sides of Q have the same length.
 - 2) The diagonals of Q have the same length.

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6. If K is a positive integer less than 10 and $N = 4321 + K$, what is the value of K ?
- 1) N is divisible by 3.
 - 2) N is divisible by 7.
7. How much did it cost the AB Corporation for liability insurance in 1976?
- (1) The company spent \$29,000 for liability insurance in 1975, 1976, 1977.
 - (2) The company paid \$7000 for liability insurance in 1977.
8. How much does each book on the bookshelf weigh?
- (1) The books and the bookshelf weigh 43 pounds.
 - (2) The books are uniform in size.
9. A man's summer suit sells for \$150. After a month, the suit, if unsold, is offered for sale at a discount of 40 percent. Will the seller make a profit on the sale of the suit?
- (1) The markup on the cost of the suit is 50 percent.
 - (2) The seller's average gross profit is 23 percent.
10. How long would it take 12 men to dig a trench?
- (1) Sewer pipes will be placed in the trench.
 - (2) It has taken 9 men $1\frac{1}{2}$ hours to dig a trench of the required size.
11. A club has 100 members. It has an executive committee of 120. From how many members may the finance committee be chosen?
- (1) The appropriations committee is chosen from the executive committee.
 - (2) None of the six members of the finance committee may be members of the appropriations committee.
12. What is the size of the edge of a cube?
- (1) Total surface area in square inches = 30 times the size of the edge.
 - (2) 25 times the size of the edge = number of cubic inches in the box.
13. What part of the distance from New York to Paris does the Concorde travel in $1\frac{1}{4}$ hours?
- (1) The Concorde travels at 750 miles per hour.
 - (2) The Concorde travels from New York to Paris in $3\frac{1}{2}$ hours.

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14. How much does a car dealer make on the sale of a new car which lists for \$8900?
- (1) The dealer gets a 25 percent discount from the manufacturer.
 - (2) The dealer accepted the purchaser's car for a trade-in value of \$1900.
15. A certain packing crate contains between 50 and 60 books. How many books are there in the packing crate?
- (1) If the books are counted out by threes there will be one book left over.
 - (2) If the books are counted out by sixes, there will be one book left over.
16. If $p > 0$, what percent is p of q ?
- (1) $q = 2p$
 - (2) $p + q = 36$
17. If x , y , and z are the lengths of three sides of a triangle, is $z > x + y$?
- (1) $X + y = 8$
 - (2) $X = 6$
18. Is 15 the average of X , Y and 15?
- (1) $X + Y = 30$
 - (2) $X - Y = 4$
19. How many square floor tiles of size x will it take to cover a rectangular kitchen floor?
- (1) The width of the kitchen floor is 10.
 - (2) The length of the kitchen floor is $30x$.
20. If $a + b + c = 50$, what is the value of a ?
- (1) $c = 4a - b$
 - (2) the average of b and c is $2a$.

Answer Key

1	A	2	E	3	D	4	E	5	C	6	B	7	E	8	E	9	A	10	B
11	E	12	D	13	B	14	E	15	B	16	A	17	E	18	A	19	C	20	D