

Aprotrain – Aptech Computer Education
GMAT TEST
SECTION 2 – DATA SUFFICIENCY
Time: 35 minutes

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 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.

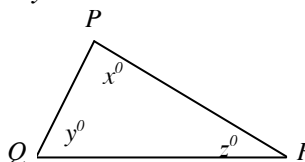
Note: In questions that ask for the value of a quantity, the data given in the statements are sufficient only when it is possible to determine exactly one numerical value for the quantity.

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.

Question 1

Is the positive integer n a multiple of 24?

- 1) n is a multiple of 4
- 2) n is a multiple of 6

Question 2

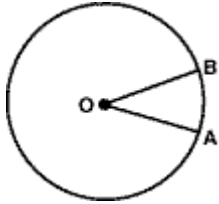
Does $2m - 3n = 0$?

- (1) $m \neq 0$
- (2) $6m = 9n$

Question 3

What is the area of the circular section AOB ? A and B are points on the circle which has O as its center.

- (1) Angle $AOB = 36^\circ$
- (2) $OB = OA$



Question 4

A certain expressway has exits J , K , L and M in that order. What is the road distance from exit K to exit L ?

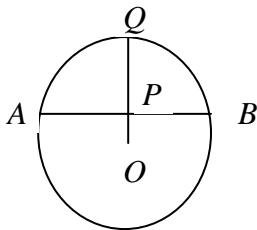
- (1) The road distance from exit J to exit L is 21 kilometers.
- (2) The road distance from exit K to exit M is 26 kilometers.

Question 5

How long will it take to travel from A to B ? It takes 4 hours to travel from A to B and back to A .

- (1) It takes 25% more time to travel from A to B than it does to travel from B to A .
- (2) C is midway between A and B , and it takes 2 hours to travel from A to C and back to A .

Question 6



What is the radius of the circle above with center O ?

- 1) The ratio of OP to PQ is 1 to 2

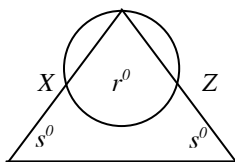
2) P is the midpoint of chord AB

Question 7

If the total price of n equally priced shares of a certain stock was \$12,000, what was the price per share of the stock?

- (1) If the price per share of the stock had been \$1 more, the total price of the n shares would have been \$300 more.
- (2) If the price per share of the stock had been \$2 less, the total price of the n shares would have been 5 percent less.

Question 8



What is the circumference of the circle above?

1. The length of arc XYZ is 18.
2. $r = s$

Question 9

How many newspapers were sold at a certain newsstand today?

- (1) A total of 100 newspapers were sold at the newsstand yesterday, 10 fewer than twice the number sold today.
- (2) The number of newspapers sold at the newsstand yesterday was 45 more than the number sold today.

Question 10

If a certain animated cartoon consists of a total of 17,280 frames on film, how many minutes will it take to run the cartoon?

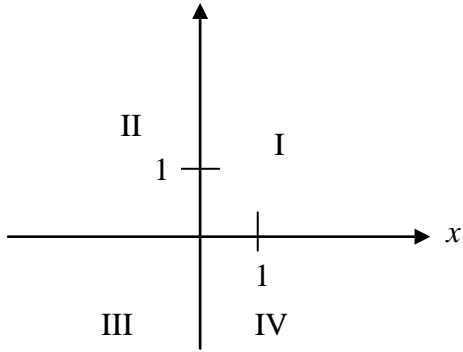
1. The cartoon runs without interruption at the rate of 24 frames per second
2. It takes 6 times as long to run the cartoon as it takes to rewind the film, and it takes a total of 14 minutes to do both

Question 11

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 12



If $ab \neq 0$, in what quadrant of the coordinate system above does point (a, b) lie?

- (1) (b, a) lies in quadrant IV
- (2) $(a, -b)$ lies in quadrant III

Question 13

In a certain group of people, the average (arithmetic mean) weight of the males is 180 pounds and of the females, 120 pounds. What is the average weight of the people in the group?

1. The group contains twice as many females as males
2. The group contains 10 more females than males

Question 14

$$3.2\Box\Delta 6$$

If \Box and Δ each represent single digits in the decimal above, what digit does \Box represent?

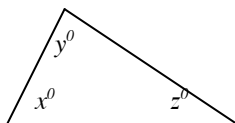
1. When the decimal is rounded to the nearest tenth, 3.2 is the result.
2. When the decimal is rounded to the nearest hundredth, 3.24 is the result.

Question 15

If both x and y are nonzero numbers, what is the value of $\frac{x}{y}$?

- (1) $x = 6$
- (2) $y^2 = x^2$

Question 16



What is the value of z in the triangle above?

1. $x + y = 139$
2. $y + z = 108$

Question 17

A shirt and a pair of gloves cost a total of \$41.70. How much does the pair of gloves cost?

1. The shirt costs twice as much as the gloves
2. The shirt costs \$27.80

Question 18

Buckets X and Y contained only water and bucket Y was $\frac{1}{2}$ full. If all of the water in bucket X was then poured into bucket Y , what fraction of the capacity of Y was then filled with water?

- 1) Before the water from X was poured, X was $\frac{1}{3}$ full
- 2) X and Y have the same capacity

Question 19

If Hans purchased a pair of skis and a ski jacket, what was the cost of the skis?

- 1) The ratio of the cost of the skis to the cost of the jacket was 5 to 1
- 2) The total cost of the skis and the jacket was \$360

Question 20

If a group of 5 craftsmen take 3 hours to finish a job, how long will it take a group of 4 apprentices to do the same job?

- 1) An apprentice works at $\frac{2}{3}$ the rate of a craftsman.
- 2) The 5 craftsmen and the 4 apprentices working together will take $1\frac{22}{33}$ hours to finish the job.

Question 21

	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 ?

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

Question 22

Machine x runs at a constant rate and produces a lot consisting of 100 cans in 2 hours. How much less time would it take to produce the lot of cans if both machines X and Y were run simultaneously?

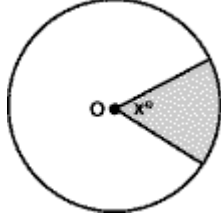
- 1) Both machines X and Y produce the same number of cans per hour

- 2) It takes machine X twice as long to produce the lot of cans as it takes machine X and Y running simultaneously to produce the lot

Question 23

What is the area of the shaded part of the circle? O is the center of the circle.

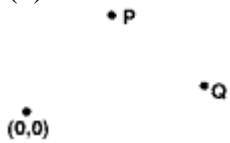
- (1) The radius of the circle is 4.
 (2) x is 60.



Question 24

Do the points P and Q lie on the same circle with center $(0, 0)$?

- (1) The coordinates of point P are $(2, 3)$.
 (2) The coordinates of point Q are $(4, 1)$.



Question 25

If $x + y > 0$, is $x > |y|$?

- 1) $x > y$
 2) $y < 0$