Question 1:

If the units digit of integer n is greater than 2, what is the units digit of n?

(1) The units digit of n is the same as the units digit of n^2.

(2) The units digit of n is the same as the units digit of n^3.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

▶ View Solution

Question 2:

What is the value of the integer p?

(1) Each of the integers 2, 3, and 5 is a factor of p.

(2) Each of the integers 2, 5, and 7 is a factor of p.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

▶ View Solution

Question 3:

If the length of Wanda's telephone call was rounded up to the nearest whole minute by her telephone company, then Wanda was charged for how many minutes for her telephone call?

**(1) The total charge for Wanda's telephone call was
(6.50.**

**(2) Wanda was charged
)0.50 more for the first minute of the telephone call than for each minute after the first.**

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

▶ View Solution

Question 4:

**The only gift certificates that a certain store sold yesterday were worth either
(100 each or**

)10 each. If the store sold a total of 20 gift certificates yesterday, how many gift certificates worth (10 each did the store sell yesterday?

(1) The gift certificates sold by the store yesterday were worth a total of between)1,650 and (1,800.

(2) Yesterday the store sold more than 15 gift certificates worth)100 each.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

▶ View Solution

Question 5:

Is the standard deviation of the set of measurements $x_1, x_2, x_3, \ldots, x_{20}$ less than 3?

(1) The variance for the set of measurements is 4.

(2) For each measurement, the difference between the mean and that measurement is 2.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(D) EACH statement ALONE is sufficient to answer the question asked.

▶ View Solution

Question 6:

Is $\frac{5^{x+2}}{25} < 1$**?**

(1) $5^x < 1$

(2) $x < 0$

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(D) EACH statement ALONE is sufficient to answer the question asked.

▶ View Solution

Question 7:

Of the companies surveyed about the skills they required in prospective employees, 20 percent required both computer skills and writing skills. What percent of the companies surveyed required neither computer skills nor writing skills?

(1) Of those companies surveyed that required computer skills, half required writing skills.

(2) 45 percent of the companies surveyed required writing skills but not computer skills.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

▶ View Solution

Question 8:

What is the value of $w + q$?

(1) $3w = 3 - 3q$

(2) $5w + 5q = 5$

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(D) EACH statement ALONE is sufficient to answer the question asked.

▶ View Solution

Question 9:

If X and Y are points in a plane and X lies inside the circle C with center O and radius 2, does Y lie inside circle C?

(1) The length of line segment XY is 3.

(2) The length of line segment OY is 1.5.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

▶ View Solution

Question 10:

Is $x > y$?

(1) $x = y + 2$

(2) $\frac{x}{2} = y - 1$

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

▶ View Solution

Question 11:

If Paula drove the distance from her home to her college at an average speed that was greater than 70 kilometers per hour, did it take her less than 3 hours to drive this distance?

(1) The distance that Paula drove from her home to her college was greater than 200 kilometers.

(2) The distance that Paula drove from her home to her college was less than 205 kilometers.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

▶ View Solution

Question 12:

In the xy-plane, if line k has negative slope and passes through the point (-5,r), is the x-intercept of line k positive?

(1) The slope of line k is -5.

(2) $r > 0$

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

▶ View Solution

Question 13:

If
(5,000 invested for one year at p percent simple annual interest yields
)500, what amount must be invested at k percent simple annual interest for one year to yield the same number of dollars?

(1) k = 0.8p

(2) k = 8

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(D) EACH statement ALONE is sufficient to answer the question asked.

▶ View Solution

Question 14:

If $\frac{x+y}{z} > 0$, is $x < 0$?

(1) $x < y$

(2) $z < 0$

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

▶ View Solution

Question 15:

Does the integer k have at least three different positive prime factors?

(1) $\frac{k}{15}$ **is an integer.**

(2) $\frac{k}{10}$ **is an integer.**

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

▶ View Solution

Question 16:

In City X last April, was the average (arithmetic mean) daily high temperature greater than the median daily high temperature?

(1) In City X last April, the sum of the 30 daily high temperatures was 2,160°.

(2) In City X last April, 60 percent of the daily high temperatures were less than the average daily high temperature.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

▶ View Solution

Question 17:

If m and n are positive integers, is $(\sqrt{m})^n$ an integer?

(1) $(\sqrt{m})$ is an integer.

(2) $(\sqrt{n})$ is an integer.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

▶ View Solution

Question 18:

Of the 66 people in a certain auditorium, at most 6 people have their birthdays in any one given month. Does at least one person in the auditorium have a birthday in January?

(1) More of the people in the auditorium have their birthday in February than in March.

(2) Five of the people in the auditorium have their birthday in March.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(D) EACH statement ALONE is sufficient to answer the question asked.

▶ View Solution

Question 19:

Last year the average (arithmetic mean) salary of the 10 employees of Company X was (42,800. What is the average salary of the same 10 employees this year?

(1) For 8 of the 10 employees, this year's salary is 15 percent greater than last year's salary.

(2) For 2 of the 10 employees, this year's salary is the same as last year's salary.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

▶ View Solution

Question 20:

In a certain classroom, there are 80 books, of which 24 are fiction and 23 are written in Spanish. How many of the fiction books are written in Spanish?

(1) Of the fiction books, there are 6 more that are not written in Spanish than are written in Spanish.

(2) Of the books written in Spanish, there are 5 more nonfiction books than fiction books.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(D) EACH statement ALONE is sufficient to answer the question asked.

▶ View Solution

Question 21:

If p is the perimeter of rectangle Q, what is the value of p?

(1) Each diagonal of rectangle Q has length 10.

(2) The area of rectangle Q is 48.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient to answer the question asked.

(E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed.

Correct Answer:

(C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient.

▶ View Solution