

GMAT quantitative reasoning sample paper

1. If $y = x^2 + mx + 48$ has x-intercepts $(a, 0)$ and $(b, 0)$, where a and b are integers, what is the least possible value of m ?
 - A) -14
 - B) -21
 - C) -44
 - D) -49
 - E) -50
2. For any two integers m and n , $\text{range}(m, n)$ denotes the difference in the values of m and n . For example, $\text{range}(3, 6) = 3$. For the integers c and d , what is the value of $\text{range}(c, d)$?
 - (1) $\text{range}(c, 6) = 20$
 - (2) $\text{range}(d, 15) = 5$
 - 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.
3. A rectangular tennis court is divided into six sections with a net splitting the court into two halves at the midpoint of its length. Each half has three equal sections consisting of a single large section and two equal smaller sections exactly half the size of the large section. If the length of the entire court is 24 meters, and the area of one of the smaller sections is 24 square meters, what is the width of the entire court?
 - A) 4 meters.
 - B) 6 meters.
 - C) 8 meters.
 - D) 12 meters.

E) 24 meters.

4. The amount of time that three people worked on a certain project was in the ratio of 2 : 3 : 5. If the project took 110 hours, what is the difference between the number of hours worked by the person who worked for the greatest time and the person who worked for the least time?

A. 11
B. 22
C. 33
D. 44
E. 55

5. Tickets to a play cost \$10 for children and \$25 for adults. If 100 tickets were sold, were more adult tickets sold than children's tickets?

(1) The average revenue per ticket was \$18.25.

(2) The revenue from ticket sales exceeded \$1,800.

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.

6. If $a < 0$ and $b < c$, which of the following must be true?

A. $ab < c$
B. $ac > b$
C. $ab > 0$
D. $ac < 0$
E. $ab > ac$

7. Company X has exactly two product lines and no other sources of revenue. If the consumer product line experienced a $k\%$ increase in annual revenue (where k is a positive integer) from 2014 to 2015 and the machine parts line experienced a $k\%$ decrease in annual revenue from 2014 to 2015, did Company X's overall revenue increase in 2015 ?

(1) In 2014, the consumer products line generated more revenue than the machine parts line.

(2) $k = 8$

- 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.
8. Twelve identical machines, running continuously at the same constant rate, take 8 days to complete a shipment. How many additional machines, each running at the same constant rate, would be needed to reduce the time required to complete a shipment by 2 days?
- A. 2
 - B. 3
 - C. 4
 - D. 6
 - E. 9