

GMAT quantitative reasoning sample paper

1. A student is required to solve 6 out of the 10 questions in a test. The questions are divided into two sections of 5 questions each. In how many ways can the student select the questions to solve if not more than 4 questions can be chosen from either section?

100  
210  
150  
200  
105

2. How many 6-digit numbers can be formed using the digits  $\{1, 2, 3, \dots, 9\}$  such that any digit that appears in such a number appears at least twice?

1809  
7569  
9369  
8649  
8289

3. If  $y$  is the highest power of a number ' $x$ ' that can divide  $101!$  without leaving a remainder, then for which among the following values of  $x$  will  $y$  be the highest?

111  
462  
74  
33  
210

4. Is  $x |x| = x^2$ ?

Statement 1:  $x(1 - x^2) < 0$   
Statement 2:  $x(1 - x) < 0$

5. What is the range of 5 distinct single-digit positive integers if their average is 5?

Statement 1: Their median is 6.  
Statement 2: The average of the 3 largest among the 5 numbers is 7.

6. What is the range of 3 positive integers  $a$ ,  $b$ , and  $c$ ?

Statement 1:  $21a = 9b = 7c$   
Statement 2:  $a + 8$ ,  $b$ , and  $c$ , in that order are in AP.

7. If  $a, b, \dots, j$  are real numbers such that  $(a - 1)^2 + (b - 2)^4 + (c - 3)^6 + \dots + (j - 10)^{20} = 0$ , what is the value of  $b \times d \times f \times h \times j$ ?

120  
36,28,800  
3840

240

1536

8. Is the twelve-digit positive integer a perfect square?

Statement 1: The number comprises only the digits 0, 1, and 2, each written four times.

Statement 2: The sum of the digits of the twelve-digit number is 12.