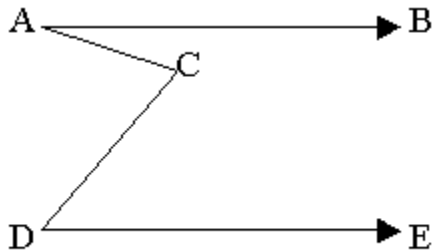**GMAT Practice Paper**

Quantitative reasoning

Problem solving

1. Courier charges for packages to a certain destination are 65 cents for the first 250 grams and 10 cents for each additional 100 grams or part thereof. What could be the weight in grams of a package for which the charge is $1.55 ?
A. 1155
B. 1145
C. 1040
D. 950
E. 259

(figure not to scale)

2. AB and DE are parallel. Angle BAC = 30 , angle CDE = 50. What is the measure of angle ACD ?
A. 100
B. 90
C. 80
D. 70
E. cannot be determined from the information

3. If x / y is an integer, which of the following statements must be true?
A. both x and y are integers
B. x is an integer
C. either x or y is negative
D. y / x is an integer
E. x = ny where n is an integer

4. What is the average of four tenths and five thousandths?
A. 25002
B. 2502
C. 0.225

D. 0.2025
E. 0.02025

5. What is the simplified result of following the steps below in order?
(1) add 5y to 2x
(2) multiply the sum by 3
(3) subtract x + y from the product
A. 5x + 14y
B. 5x + 16y
C. 5x + 5y
D. 6x + 4y
E. 3x + 12y

6. The total weight of a tin and the cookies it contains is 2 pounds. After ◆ of the cookies are eaten, the tin and the remaining cookies weigh 0.8 pounds. What is the weight of the empty tin in pounds?
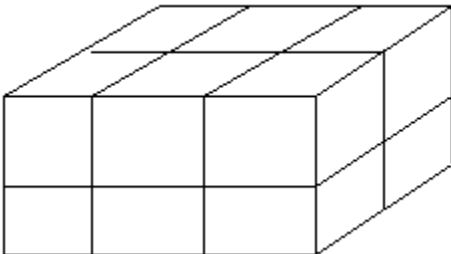A. 0.2
B. 0.3
C. 0.4
D. 0.5
E. 0.6

7. If $y ¤ x = y^{2x}$ for all positive integers, then $(3 ¤ 4) ¤ 2 =$
A. 3^8
B. 3^{12}
C. 3^{16}
D. 3^{24}
E. 3^{32}

8. The first term in a sequence is 1 and the second term is 5. From the third term on each term is the average (arithmetic mean) of all preceding terms. What is the 25th term in the sequence?
A. 2.5
B. 3
C. 5
D. 25
E. 50

9. The solid brick shown is made of small bricks of side 1. When the large brick is disassembled into its component small bricks, the total surface area of all the small bricks is how much greater than the surface area of the large brick?
A. 32
B. 40
C. 60
D. 72
E. 80

10. $(3x + 2)(2x - 5) = ax^2 + kx + n$.
What is the value of $a - n + k$?
A. 5
B. 8
C. 9
D. 10
E. 11

Data sufficiency

1. If x and y are both positive, and if x/y = 7/2, how much greater is x than y?

   1. $2x + y = 8$
   2. 0

 A. statement 1 alone is sufficient, but statement 2 alone is not sufficient to answer the question
 B. statement 2 alone is sufficient, but statement 1 alone is not sufficient to answer the question
 C. both statements taken together are sufficient to answer the question, but neither statement alone is sufficient
 D. each statement alone is sufficient
 E. statements 1 and 2 together are not sufficient, and additional data is needed to answer the question

2. If x, y and z are different integers, is x divisible by 11?

   1. xyz is divisible by 22 and 33
   2. yz is divisible by 72

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3. A die is rolled randomly on to a circular board with a triangle inscribed in the circle. (All three vertices of the triangle are on the circumference of the circle.) What is the probability that the die comes to rest outside the triangular region?

1. The hypotenuse of the triangle is the diameter of the circle.
2. The radius of the circle is 2 units, and the area of the triangle is 4 square units.

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4. A university has 2,000 faculty members all of whom have a masters degree, and some of whom also have a doctorate. 35 percent of the faculty members are female. What fraction of the faculty members are female doctorate holders?

1. 20 percent of the male faculty members have a doctorate.
2. A total of 1140 faculty members have only a masters degree.

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5. The retail price of a certain refrigerator was Z dollars. Nina was given a further 10 percent discount on the already discounted sale price (Y) of this refrigerator. Given that the price Nina paid was X dollars, what was the dollar value of the extra 10 percent discount that she obtained?

1. The sale price, Y, was 90 percent of the normal retail price, Z.
2. If the sale price, Y, had been 20 dollars more, then X would have been $14 less than this new value of Y.

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6. In triangle ABC all the sides have integer lengths. What is the length of side AC?

   1. AB = 3 and BC = 4
   2. One of the angles of ABC is a right angle

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7. Is x < 0 ?

   1. 7x > 8x
   2. -3(x) >0

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8. In what year was Heidi born?

   1. Heidi�s daughter was born in 1960 when Heidi was 28 years old.
   2. Heidi�s birthday and her daughter�s birthday are exactly six months apart.
A. statement 1 alone is sufficient, but statement 2 alone is not sufficient to answer the question
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9. Is xy < 15?

   1. 0.5 < x < 1, and y^2 = 144
   2. x < 3 , y < 5

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10. Set 1: 13, 10, 8, 2
    Set 2: 13, 11, 3, 2, x

Is the median of the numbers in set 1 above, equal to the median of the numbers in set 2?
   1. 8 < x < 10
   2. The sum of numbers in set 2 is 38

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