

# GRE数学

模考2-Section 4

M A K E I T E A S Y

1.  $|x| + |y| = 3$

Quantity A:  $x + y$

Quantity B:  $-2$

2. The sum of 11 consecutive integers is 22.

Quantity A: The median of the 11 integers

Quantity B: 3

3. When the positive integer  $q$  is divided by 2, the remainder is 0.

Quantity A: The remainder when  $q$  is divided by 8

Quantity B: 4

4. Figure I and Figure II each show a small square inscribed in a large square that has sides of length 10.

Quantity A: The perimeter of the small square in Figure I

Quantity B: The perimeter of the small square in Figure II

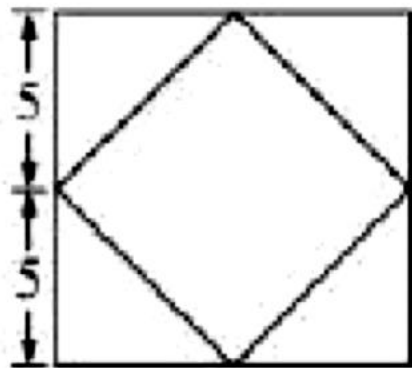


Figure I

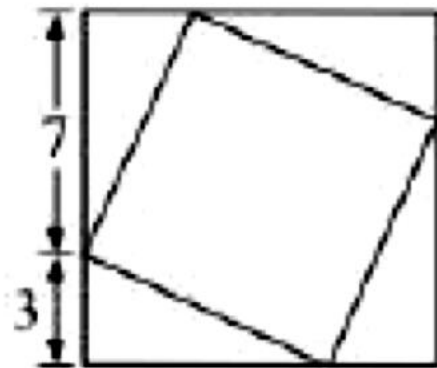


Figure II

5. Quantity A: The area of a circle with circumference  $8\pi x$

Quantity B: The area of a circle with radius  $4x$

6. A certain car travels 120 miles in  $t$  hours at a constant rate of  $r$  miles per hour.

Quantity A: The number of hours required for the car to travel 240 miles at a constant rate of  $3r$  miles per hour

Quantity B:  $t$

7. For all numbers  $x$ , the function  $f$  is defined as follows.

$$f(x) = \begin{cases} 2^{-x} & \text{if } x > 0 \\ 2^x & \text{if } x \leq 0 \end{cases}$$

Quantity A:  $f(-4) + f(0) - f(4)$

Quantity B: 1



8. If  $x = -3$ , which of the following is greatest?

9. A class contains 120 students, each of whom is either a part-time student or a full-time student. If a student is to be selected at random from the class, then the probability that the student will be a part-time student is  $\frac{2}{5}$ . How many of the students in the class are full-time students?

10. The least positive integer that is divisible by 2, 3, 15, and 28 is

11. In a certain city, 15 percent of the total population is more than 60 years old. If 60 percent of the people older than 60 voted in a recent election, then these voters comprised what percent of the total population?

12. According to the scale given on a certain map, 1 inch is equivalent to 20 miles. Which of the following scales are the same as the scale given on the map?  
Indicate all such scales.

13. If  $x$  is an odd integer, which of the following must be an odd integer?

14. For the countries shown, what is the range of the percents of 25 to 64 years old with no high school diploma?

Distribution of Level of Educational Attainment and Unemployment Rates for 25 to 64 Years Old in Selected Countries, 1992

Country	Distribution of Level of Educational Attainment			Unemployment Rate
	No High School Diploma	High School Diploma Only	Two-year College Degree or Higher	
Austria	32%	60%	8%	3.6%
Belgium	55%	25%	20%	7.8%
France	48%	36%	16%	8.8%
Germany	18%	60%	22%	6.2%
Italy	72%	22%	6%	7.4%
Netherlands	43%	36%	21%	5.6%
Spain	77%	9%	14%	14.7%
Switzerland	19%	61%	20%	2.5%

15. For how many of the countries was the percent of 25 to 64 years old with no high school diploma greater than the percent with a two-year college degree or higher?

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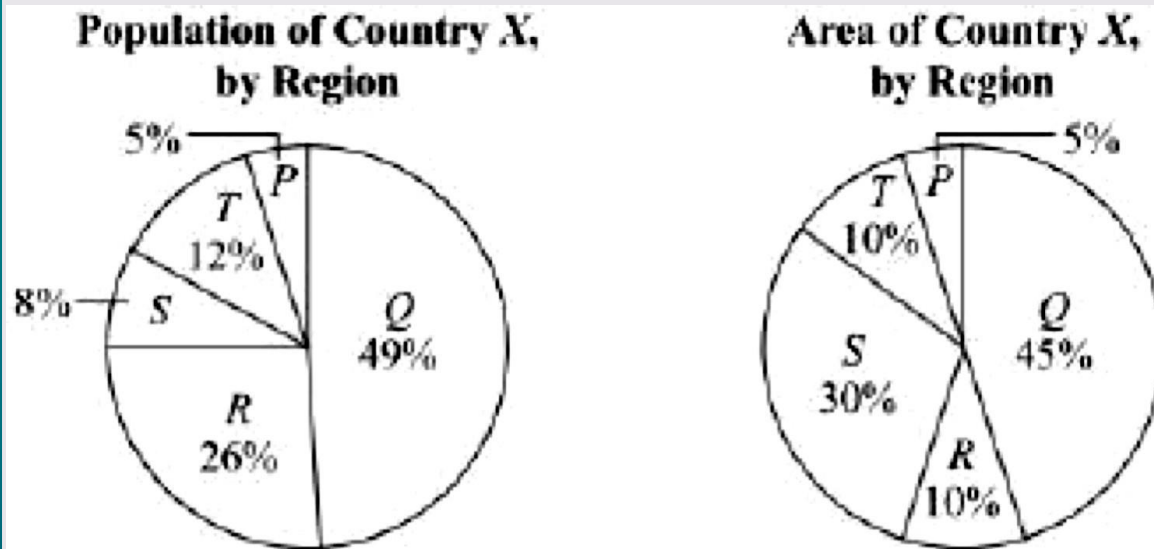
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16. What is the median unemployment rate for 25 to 64 years old in those countries for which more than 15 percent of 25 to 64 year old had a level of educational attainment of a two-year college degree or higher?

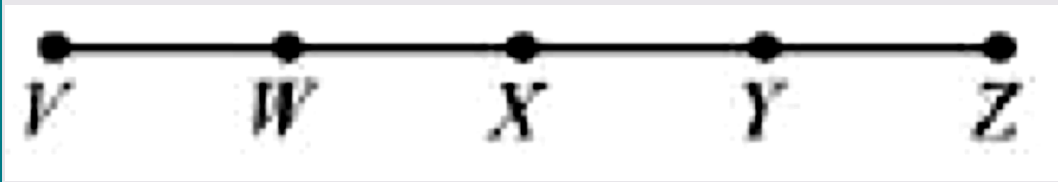
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17. Country  $X$  consists of five regions— $P$ ,  $Q$ ,  $R$ ,  $S$ , and  $T$ . The circle graphs show the percent distributions of the population and the area of Country  $X$ , by region. Which region of Country  $X$  has the greatest population per unit of area?



18. Which two of the following points in the  $xy$ -plane lie on the same horizontal line?  
Indicate both of the points.

19. In the figure shown,  $X$  is the midpoint of line segment  $VZ$ , and  $W$  and  $Y$  are the midpoints of line segments  $VX$  and  $XZ$ , respectively. What is the ratio of the length of  $VY$  to the length of  $WY$ ?



20. The sum of the squares of three consecutive positive integers is 149. What is the sum of the three integers?

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