

GRE数学

综合练习2-Section 2

M A K E I T E A S Y

1. Of the students in a certain group, 22 percent are juniors and 26 percent are seniors.

Quantity A: The ratio of the number of juniors in the group to the number of seniors in the group.

Quantity B: $\frac{4}{5}$

2. The area of a circular region is 5π

Quantity A: The diameter of the circular region

Quantity B: $\sqrt{20}$

3. The reciprocal of $x - 2$ is $x + 2$

Quantity A: x

Quantity B: 3

4. $x > 0$

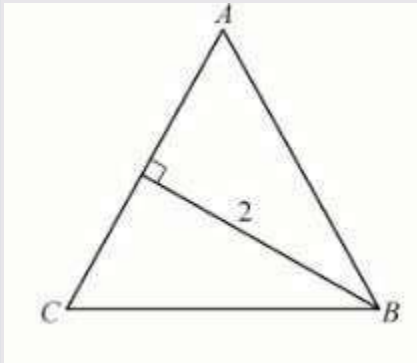
Quantity A: The area of a square region with diagonal of length $\sqrt{2}x$

Quantity B: The area of a circular region with diameter of length x

5. ABC is an equilateral triangle.

Quantity A: The length of AB

Quantity B: $2\sqrt{3}$



$$6. \frac{1}{2} < r < 1$$

Quantity A: $2r$

Quantity B: $\frac{1}{r}$

7. In a data set of 10,000 numbers varying from 20 to 80, the number 62 is the 60th percentile and the number 74 is the n th percentile.

Quantity A: n

Quantity B: 70

8. A historian asserts that at the beginning of 1852, the population of a certain mining town was 16,000. The historian also asserts that for each of the years from 1849 through 1853, the town's population at the beginning of the year was twice that of the preceding year. According to the historian, what was the range of the town's populations at the beginning of each year from 1848 through 1853?

9. A box at a yard sale contains 3 different china dinner sets, each consisting of 5 plates. A customer will randomly select 2 plates to check for defects. What is the probability that the 2 plates selected will be from the same dinner set?

10. Line l in the xy -plane contains points A and B with coordinates $(-4,5)$ and $(6,-1)$, respectively. Line k is perpendicular to l and contains the midpoint of line segment AB . Which of the following statements are true?

Indicate all such statements.

11. What is the remainder when 3^{283} is divided by 5?

12. If $x < y$, which of the following must be true?

13. A rectangular solid P has height $2c$ and a base of width a and length b . Two other rectangular solids, Q and R , each have height c and bases of width a and length b . Which of the following represents the amount by which the sum of the surface areas of Q and R exceeds the surface areas of P ?

14. Which of the following statements about the managers surveyed must be true? (多选)

A survey of 550 male managers and 650 female managers was conducted. All 1,200 managers identified whether, for each of six characteristics, the characteristic is important to consider when hiring a new employee. For each of the six characteristics, the percent of managers surveyed who identified that characteristic as important to consider is given in the following table.

SURVEY RESULTS

Characteristic	Percent
Work experience	72%
Proficiency in English	68%
Ability to follow directions	65%
Specific occupational skill	60%
Computer expertise	58%
Appropriate attire and behavior	55%

15. The number of managers surveyed who identified work experience as an important characteristic to consider was approximately what percent greater than the number who identified appropriate attire and behavior as an important characteristic to consider?

A survey of 550 male managers and 650 female managers was conducted. All 1,200 managers identified whether, for each of six characteristics, the characteristic is important to consider when hiring a new employee. For each of the six characteristics, the percent of managers surveyed who identified that characteristic as important to consider is given in the following table.

SURVEY RESULTS

Characteristic	Percent
Work experience	72%
Proficiency in English	68%
Ability to follow directions	65%
Specific occupational skill	60%
Computer expertise	58%
Appropriate attire and behavior	55%

16. If 48 percent of the managers surveyed identified both ability to follow directions and computer expertise as an important characteristics to consider, what percent of the managers surveyed identified neither of these characteristics as important to consider?

A survey of 550 male managers and 650 female managers was conducted. All 1,200 managers identified whether, for each of six characteristics, the characteristic is important to consider when hiring a new employee. For each of the six characteristics, the percent of managers surveyed who identified that characteristic as important to consider is given in the following table.

SURVEY RESULTS

Characteristic	Percent
Work experience	72%
Proficiency in English	68%
Ability to follow directions	65%
Specific occupational skill	60%
Computer expertise	58%
Appropriate attire and behavior	55%

17. If the product of 7 consecutive integers is equal to the median of the integers, what is the least of the 7 integers?

18. On his trip to the airport, Grant drove a total of 9 miles. His average speed on the trip was x miles per hour, where $30 \leq x \leq 35$. Which of the following could be the total number of minutes that Grant took to make the trip?

Indicate all such numbers of minutes.

19. If n is an integer, what is the least possible value of $3^n + (3)(3^{-n})$

20. At a certain elementary school, 10 percent of the fifth-grade students are members of the school band. If 12 percent of the fifth-grade boys and 8 percent of the fifth-grade girls are members of the band, what percent of the fifth-grade students at the school are boys?

Thanks

新东方旗下官方网络课堂

www.koolearn.com