新东方在线

GRE数学

1.2 数学题型介绍

M A K E I T E A S Y

The Quantitative Reasoning measure has four types of questions:

Quantitative Comparison questions

Multiple-choice questions-Select One Answer Choice

Multiple-choice questions-Select One or More Answer Choices

Numeric Entry questions

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- 数量比较（8-9/section）

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

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1. Quantity A: The least prime number greater than 24
Quantity B: The greatest prime number less than 28

- 数量比较（8-9/section）

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

2. Lionel is younger than Maria.
Quantity A: Twice Lionel’s age
Quantity B: Maria’s age

- 数量比较（8-9/section）

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

3. Quantity A: 54% of 360
Quantity B: 150

- 数量比较（8-9/section）

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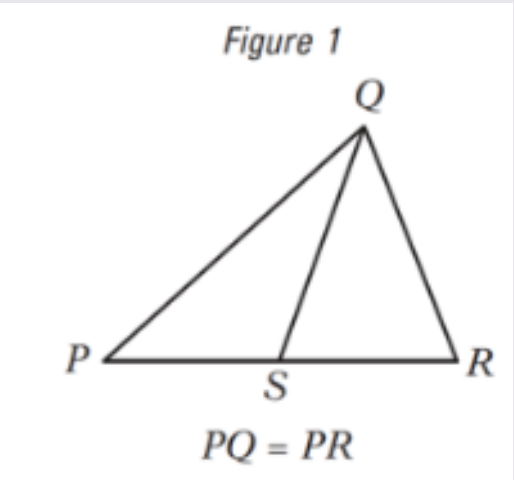
4. Quantity A: PS
Quantity B: SR



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A. Quantity A is greater.
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5. $y>4$

Quantity A: $\frac{3y+2}{5}$

Quantity B: y

- 数量比较（8-9/section）

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

6. Quantity A: x^2+1
Quantity B: $2x-1$

● 数量比较注意事项

Become familiar with the answer choices.

Quantitative Comparison questions always have the same answer choices, so get to know them, especially the last choice, "The relationship cannot be determined from the information given. Never select this last choice if it is clear that the values of the two quantities can be determined by computation. Also, if you determine that one quantity is greater than the other, make sure you carefully select the corresponding choice so as not to reverse the first two choices.

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- 数量比较注意事项

Avoid unnecessary computations.

Don’ t waste time performing needless computations in order to compare the two quantities. Simplify, transform, or estimate one or both of the given quantities only as much as is necessary to compare them.

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- 数量比较注意事项

Remember that geometric figures are not necessarily drawn to scale.

If any aspect of a given geometric figure is not fully determined, try to redraw the figure, keeping those aspects that are completely determined by the given information fixed but changing the aspects of the figure that are not determined. Examine the results. What variations are possible in the relative lengths of line segments or measures of angles?

● 数量比较注意事项

Plug in numbers.

If one or both of the quantities are algebraic expressions, you can substitute easy numbers for the variables and compare the resulting quantities in your analysis. Consider all kinds of appropriate numbers before you give an answer: e.g., zero, positive and negative numbers, small and large numbers, fractions and decimals. If you see that Quantity A is greater than Quantity B in one case and Quantity B is greater than Quantity A in another case, choose "The relationship cannot be determined from the information given."

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● 数量比较注意事项

Simplify the comparison.

If both quantities are algebraic or arithmetic expressions and you cannot easily see a relationship between them, you can try to simplify the comparison. Try a step-by-step simplification that is similar to the steps involved when you solve the equation 5-4x+3 for x, or similar to the steps involved when you determined that the inequality $\frac{3y+2}{5}$<y is equivalent to the simpler inequality 1<y.

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Numeric Entry questions

● 单选题（8-9/section）

1. The figure above shows the graph of the function f defined by f(x)=|2x|+4 for all numbers x. For which of the following functions g, defined for all numbers x, does the graph of g intersect the graph of f?

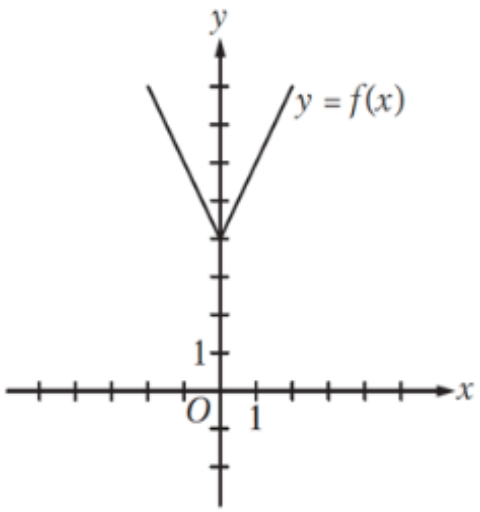

Figure 5

● 单选题（8-9/section）

2. A certain jar contains 60 jelly beans – 22 white, 18 green, 11 yellow, 5 red, and 4 purple. If a jelly bean is to be chosen at random, what is the probability that the jelly bean will be neither red nor purple?

● 单选题注意事项

Use the fact that the answer is there.
If your answer is not one of the five answer choices given, you should assume that your answer is incorrect and do the following:

Reread the question carefully-you may have missed an important detail or misinterpreted some information.

Check your computations-you may have made a mistake, such as mis-keying a number on the calculator.

Reevaluate your solution method-you may have a flaw in your reasoning.

● 单选题注意事项

Examine the answer choices.

In some questions you are asked explicitly which of the choices has a certain property. You may have to consider each choice separately, or you may be able to see a relationship between the choices that will help you find the answer more quickly. In other questions, it may be helpful to work backward from the choices, say, by substituting the choices in an equation or inequality to see which one works. However, be careful, as that method may take more time than using reasoning.

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● 单选题注意事项

For questions that require approximations, scan the answer choices to see how close an approximation is needed.

In other questions, too, it may be helpful to scan the choices briefly before solving the problem to get a better sense of what the question is asking. If computations are involved in the solution, it may be necessary to carry out all computation exactly and round only your final answer in order to get the required degree of accuracy. In other questions, you may find that estimation is sufficient and will help you avoid spending time on long computations.

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● 不定选择题（1-2/section）

1. Which two of the following numbers have a product that is between -1 and 0?
Indicate both of the numbers.

● 不定选择题（1-2/section）

2. Each employee of a certain company is in either Department X or Department Y, and there are more than twice as many employees in Department X as in Department Y. The average (arithmetic mean) salary is $25,000 for the employees in Department X and $35,000 for the employees in Department Y. Which of the following amounts could be the average salary for all of the employees of the company?
Indicate all such amounts.

● 不定选择题（1-2/section）

3. Which of the following could be the units digit of 57^n, where n is a positive integer?
Indicate all such digits.

● 不定选择题注意事项

Note whether you are asked to indicate a specific number of answer choices or all choices that apply.

In the latter case, be sure to consider all of the choices, determine which ones are correct, and select all of those and only those choices. Note that there may be only one correct choice.

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Knowing the least and/or greatest possible value may enable you to quickly determine all of the choices that are correct.

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● 填空题（1-2/section）

1. Rectangle R has length 30 and width 10, and square S has length 5. The perimeter of S is what fraction of the perimeter of R?

● 填空题（1-2/section）

2. For the large cars sold at an auction that is summarized in the table above, what was the average sale price per car?

RESULTS OF A USED-CAR AUCTION

	Small Cars	Large Cars
Number of cars offered	32	23
Number of cars sold	16	20
Projected sales total for cars offered (in thousands)	$70	$150
Actual sales total (in thousands)	$41	$120

Figure 7

● 填空题（1-2/section）

3. A merchant made a profit of $5 on the sale of a sweater that cost the merchant $15. What is the profit expressed as a percent of the merchant’ s cost?
Give your answer to the nearest whole percent.

● 填空题（1-2/section）

4. Working alone at its constant rate, machine A produces k car parts in 10 minutes. Working alone at its constant rate, machine B produces k car parts in 15 minutes. How many minutes does it take machine A and B, working simultaneously at their respective constant rate, to produce k car parts?

● 填空题注意事项

Make sure your answer the question that is asked.

Since there are no answer choices to guide you, read the question carefully and make sure you provide the type of answer required. Sometimes there will be labels before or after the answer box to indicate the appropriate type of answer. Pay special attention to units such as feet or miles, to orders of magnitude such as millions or billions, and to percents as compared with decimals.

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● 填空题注意事项

If you are asked to round your answer, make sure you round to the required degree of accuracy.

For example, if an answer of 46.7 is to be rounded to the nearest integer, you need to enter the number 47. If your solution strategy involves intermediate computations, you should carry out all computations exactly and round only your final answer in order to get the required degree of accuracy. If no rounding instructions are given, enter the exact answer.

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Examine your answer to see if it is reasonable with respect to the information given.

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● 数据分析题目（第14-16题）

1. If the dollar amount of sales at Store P was $800,000 for 2006, what was the dollar amount of sales at that store for 2008?

ANNUAL PERCENT CHANGE IN DOLLAR AMOUNT OF SALES AT FIVE RETAIL STORES FROM 2006 TO 2008

Store	Percent Change from 2006 to 2007	Percent Change from 2007 to 2008
P	10	−10
Q	−20	9
R	5	12
S	−7	−15
T	17	−8

Figure 8

● 数据分析题目（第14-16题）

2. At Store T, the dollar amount of sales for 2007 was what percent of the dollar amount of sales for 2008?
Give your answer to the nearest 0.1 percent.

ANNUAL PERCENT CHANGE IN DOLLAR AMOUNT OF SALES AT FIVE RETAIL STORES FROM 2006 TO 2008

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● 数据分析题目（第14-16题）

3. Based on the information given, which of the following statements must be true?
Indicate all such statements.

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Scan the data presentation briefly to see what it is about, but do not spend time studying all of the information in detail.

Focus on those aspects of the data that are necessary to answer the questions. Pay attention to the axes and scales of graphs; to the units of measurement or orders of magnitude (such as billions) that are given in the titles, labels, and legends; and to any notes that clarify the data.

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● 数据分析题注意事项

Bar graphs and circle graphs, as well as other graphical displays of data, are drawn to scale, so you can read or estimate data visually from such graphs.

For example, you can use the relative sizes of bars or sectors to compare the quantities that they represent, but be aware of broken scales and of bars that do not start at 0.

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The questions are to be answered only on the basis of the data presented, everyday facts(such as the number of days in a year), and your knowledge of mathematics.

Do not make use of specialized information you may recall from other sources about the particular context on which the questions are based unless the information can be derived from the data presented.

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