GRE

考 满 分 GRE
数 学 一 对 一
最新机经 600 题
考 前 巩 固 练 习

最新最全数学机经题

全面体现最新&最热门考点

1.2 分数与比例专题

[专项练习]

测试用时	正确率	错题编号
/min	/22	

分数的运算

1. $y=\dfrac{x+w}{2}$, what is w-y in terms of x and y?

（来源：GRE 数学最新最快最全机经 600 题（三）124：Medium）

2. x=(a+ b/d) / (d/c)

Which one of a, b, c, d doubles, so that x will also double?

A. a

B. b

C. c

D. d

E. None

（来源：GRE 数学最新最快最全机经 600 题（三）72：Easy）

3. k is an integer

Quantity A: $\dfrac{k^2+1}{k^2}$

Quantity B: $\dfrac{k^3+1}{k^3}$

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.

（来源：GRE 数学最新最快最全机经 600 题（一）36：Easy）

4. Quantity A: $(1-\frac{1}{100})\times(1+\frac{1}{101})\times(1-\frac{1}{102})\times(1+\frac{1}{103})\times(1-\frac{1}{104})$

Quantity B: 1

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.

（来源： GRE 数学最新最快最全机经 600 题（一）9：Medium）

分数的大小

5. 2/23 < x< 2/21

Quantity A: 2/22

Quantity B: x

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.

（来源： GRE 数学最新最快最全机经 600 题（三）140：Medium）

6. 2≤r<s≤6

If r and s are both integers, then what's the greatest possible value of $\frac{(r+s)}{rs}$?

（来源： GRE 数学最新最快最全机经 600 题（一）17：Medium）

工作效率题

7. A needs T hours to finish a work, and B needs 3T hours to finish the work. How many hours are needed if they work together?

（来源： GRE 数学最新最快最全机经 600 题（一）170：Easy）

8. The overall volume of a water tank is g. If the inlet valve is open for a minute, x volume of water will be added to the tank; If the discharge valve is open for a minute, y volume of water will be removed from the tank (y>x). If the tank is filled with water at first, then in how many minutes will the water volume in the tank drop to a half if the inlet valve and discharge valve are both open?

Give your answer with **_x, y and g_**.

速度距离问题

9. When Mark carries a speed tester for feet, he moves 93 feet per minute; when Mark carries a speed tester for hands, he moves 90 feet per minute. In how many seconds will he moves on feet 0.25 feet more than he moves on hands?

10. The speed of Tom's car is 60 miles per hour from home to work, and 40 miles per hour from work to home. If the total hours he spent on road is 2.5 hours, how many miles are there from his home to work?

11. $\dfrac{x}{y} - \dfrac{w}{u} = 2$

Car A travels x miles within y hours, while car B travels w miles within u hours

Quantity A: The averge speed of car A

Quantity B: The averge speed of car B

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.

12. A and B are 500 miles away. A car starts off from A at a speed of 80 miles per hour; an hour later, another car starts off from B at a speed of 70 miles per hour. By the time they meet, how far has the first car travelled?

（来源： GRE 数学最新最快最全机经 600 题（二）122：Medium）

13. A, M and B are three train stations. M is somewhere between A and B. Two trucks start off from A and B station at the same time. The truck starting from station A travels at 60 miles per hour, while the truck from station B travels at 40 miles per hour. They arrive at station M at the same time. What is the ratio of the distance from station A to station M to the distance from station M to station B?

Give your answer with **_fraction_**.

（来源： GRE 数学最新最快最全机经 600 题（三）111：Easy）

比例关系

14. $\frac{2}{x} = \frac{y}{2}$ (x and y are both integers)

Quantity A: x

Quantity B: y

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.

（来源： GRE 数学最新最快最全机经 600 题（三）137：Easy）

15. $w = \frac{x}{x+y}$ and $z = \frac{x}{y}$. What is w in terms of z?

（来源： GRE 数学最新最快最全机经 600 题（三）3：Easy）

16. (a+1)/(b-1)=5/7

Quantity A: a/b

Quantity B: 1/2

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.

（来源： GRE 数学最新最快最全机经 600 题（二）95：Medium）

比例关系应用题

17. The profit that a merchant got when selling oranges equals to the retail price minus the purchase price. If he sold n oranges with a retail price of s in total and a profit of p in total, what is the purchase price of each orange?

（来源： GRE 数学最新最快最全机经 600 题（三）57：Easy）

18. A printer can print 10 to 15 pages for every minute. Person A printed for 3 minutes and 12 seconds with the printer, while Person B printed for 4 minutes and 48 seconds with the printer. Which of the following statements must be true?

Indicate **_all_** such statements.

A. A had printed at least 32 pages

B. B had printed at least 48 pages

C. B had printed more pages than A

（来源： GRE 数学最新最快最全机经 600 题（三）62：Medium）

19. If 12% of all books in a library are reference books, then what is the closest ratio of the number of reference books to that of non-reference books?

A. 1:5

B. 1:7

C. 1:10

D. 1:12

E. 1:15

（来源： GRE 数学最新最快最全机经 600 题（一）10：Easy）

20. For a certain foreign currency, 1 dollar could exchange 0.8 euro. If so, how many dollars of the currency can exchange 2 euro?

21. 1 pound tea can make 210 cups of tea and 1 pound coffee can make 40 cups of coffee. The number of cups of coffee sold by a restaurant is 12 as many as the number of cups of tea sold. What is the ratio of the pounds of tea to pounds of coffee?

Give your answer with **_fraction_**.

22. In a factory, 840 workers are on day shift, among whom 252 are female. 700 workers are on night shift. The ratio of male and female workers is the same for both workers on day shift and workers on night shift. What is the number of male workers that are on night shift?

1.3 小数专题

[专项练习]

测试用时	正确率	错题编号
/min	/1	

1. When the sum of decimal number x and y is rounded to hundredths digit, the result is equal to x.

Quantity A: y

Quantity B: 0.07

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.

（来源： GRE 数学最新最快最全机经 600 题（二）196：Easy）

1.4 实数专题

测试用时	正确率	错题编号
/min	/12	

无理数

1. What is the value of x such that $\sqrt{\dfrac{24}{x+1}}$ will be an irrational number?

Indicate **_all_** such numbers.

A. 1

B. 2

C. 3

D. 5

E. 7

F. 11

G. 23

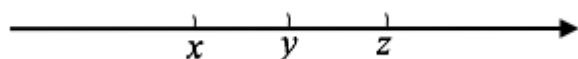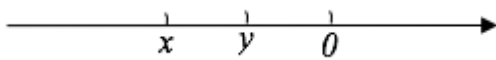（来源： GRE 数学最新最快最全机经 600 题（三）18：Easy）

绝对值

2. |1-|x-250||=1

What's the number of all the possible values of x?

（来源： GRE 数学最新最快最全机经 600 题（二）15：Easy）

3. In the following number line, |x-y|=|z-y| (x<z).

Quantity A: $\dfrac{x+z}{2}$

Quantity B: y

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.

4. Quantity A: -x

Quantity B: -y

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.

5. |2+k|=|2-k|

Quantity A: k

Quantity B: 0

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. All the points on the number line is equally spaced. Where is 49?

A. Point A

B. Between Point A and Point B

C. Point B

D. Between Point B and Point C

E. Between Point C and Point D

7. |x|+|y|=|x+y|

Which of the following statements must be true?

Indicate **_all_** such statements.

A. xy<0

B. xy>0

C. x+y>0

D. x+y<0

8. f(x)=|x+2|, where -3≤x≤-2, what could be the value of f(x)?

Indicate **_all_** such numbers.

A. 0

B. 1

C. 2

D. 4

E. 5

9. The figure above shows the graph of a 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?

A. g(x)=x-2

B. g(x)=x+3

C. g(x)=2x-2

D. g(x)=2x+3

E. g(x)=3x-2
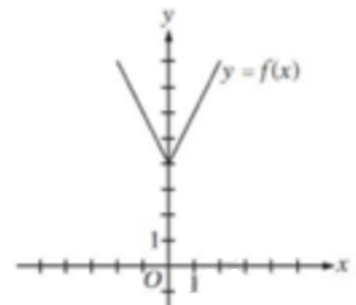
10. Quantity A: $|x^2-x-3|$

Quantity B: $|-x^2+x+3|$

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.

11. What is the number of x such that $| x^2-5x |=1$?

12. On a number line, Point P lies between -3 and -2, Point Q lies between -1 and 0, while Point R lies between 0 and 1.

Quantity A: PQ

Quantity B: QR

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.

1.5 百分数专题

[专项练习]

测试用时	正确率	错题编号
/min	/17	

Of 关系

1. The one hundredth of number X equals to 1.4. The one tenth of number Y equals to 1.3

Quantity A: X

Quantity B: Y

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.

（来源： GRE 数学最新最快最全机经 600 题（一）11：Easy）

2. At first, water accounts for 2/5 of a barrel. Later, 40 gallons of water is removed from the barrel, then the water left only accounts for 2/11 of the barrel. Therefore, how many gallons of water is needed to fill the barrel?

（来源： GRE 数学最新最快最全机经 600 题（三）44：Easy）

3. 70% of the employees in a company is lawyer, and 55% of the employees are female. 60% of all the females are lawyer. what is the ratio of male lawyer to all the employees in the company？

Give your answer with **_percent_**.

（来源： GRE 数学最新最快最全机经 600 题（二）125：Easy）

百分比多少

4. If a is 45% greater than b, then b is smaller than a by what percentage?

Give your answer to the nearest **_hundredth_** digit.

百分比增减

5. $z=x^2y$, if x decreases by 40%, and y increases by 50%. By what percent will z decrease?

A. 10%

B. 15%

C. 25%

D. 33%

E. 46%

6. x increases by 10% each year. After increasing by 2 years, the result is 4356, what is the value of x?

7. The stock price of a certain stock is $6,000 on May 5th. Compared with May 4th, the stock price drops by 8%. The stock price is the same on May 6th and May 4th. If so, by what percent does the stock price increase from May 5th to May 6th?
Give your answer to the nearest **_tenth_**.

8. The interior dimensions of a rectangular tank has a length of 110 centimeters, width of 90 centimeters, and height of 270 centimeters. The tank rests on level ground. Based on the assumption that the volume of water increases by 10 percent when it freezes, which of the following is closest to the maximum height, in centimeters, to which the tank can be filled with water so that when the water freezes, the ice would not rise above the top of the tank?

A. 230

B. 235

C. 240

D. 245

E. 250

9. If the price of a product first increased by 30% and then decreased by 30%, then the new price is decreased (or increased) by what percent than the original price?

10. Ashim purchases some goods whose listed price is $200 in WalMart

Quantity A: The price after discounted 15% and then $20 off

Quantity B: The price after $20 off and then discounted 15%

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.

11. Currently, the sales of a store is 10,000. If its sales increases by 20% every year than the previous year, then within how many years will its sales reach between 20,000 and 25,000?

Indicate **_all_** that is/are true.

A. 3

B. 4

C. 5

D. 6

12. A product's price is originally p. In the first year, its price increases by 15%. In the second year, its price continues to increase by 15% than the first year. What percent is the price in the second dyear higher than the original price?

浓度问题

13. 20 liters of Solution A is 12% salt. How many liters of Solution B that is 20% salt have to be added to Solution A such that the mixed solution will become 15%?

Give your answer in ***percentage***.

14. 9 ml of Solution A is 30% salt. When mixed with 18 ml of Solution B, the mixed solution is 25% salt. Solution B is how many percent salt?

Give your answer in ***percentage***.

单利

15. If someone puts away $60,000 in the bank for a month and collects a simple interet of $450, then what's the annual interest rate？

Give your answer in ***percentage***.

16. Someone borrows $15,000 at an annual interest rate of 8% and returns the same amount of money at the end of every month for 12 consecutive months, starting from the end of January. By which month will the amount of money left to be returned become less than 10,000?

A. March

B. April

C. May

D. June

E. July

复利

17. Someone puts away S in a bank and collects interest annually with an interest rate of r%

Quantity A: Principle plus interest after two years

Quantity B: S(1+2r%)

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.