GRE

考 满 分 G R E

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

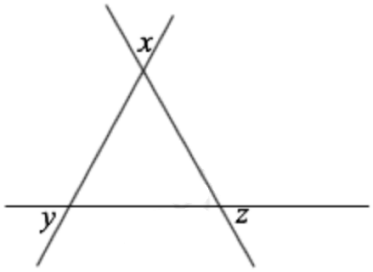
全面体现最新&最热门考点

4.1 直线与角专题

[专项练习]

测试用时	正确率	错题编号
/min	/5	

1.



Quantity A: x+y

Quantity B: z

A. Quantity A is greater.

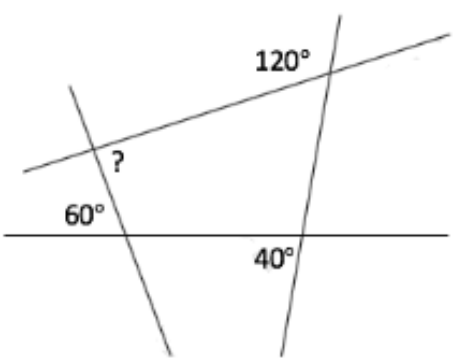
B. Quantity B is greater.

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）87：Easy）

2.



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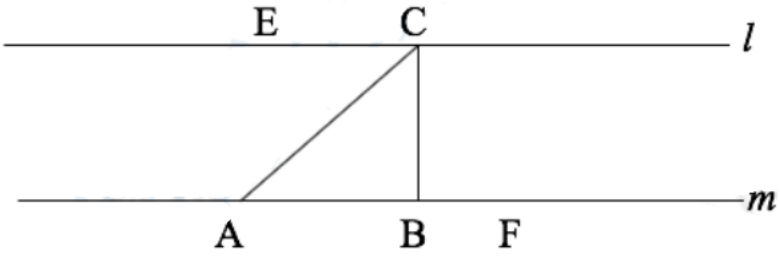
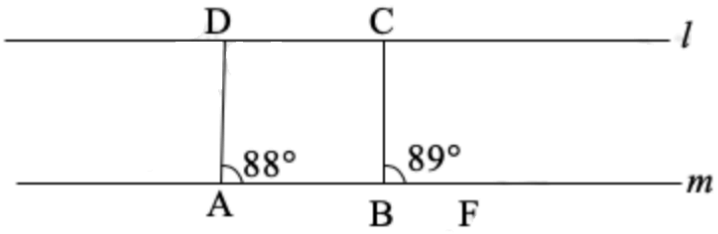
（来源： GRE 数学最新最快最全机经 600 题（一）40：Easy）



3. Line l is parallel to line m, ∠ECA=38°, and ∠ACB=48°. What is the degree of ∠CBF?

（来源： GRE 数学最新最快最全机经 600 题（三）74：Easy）



4. Line l is parallel with line m

Quantity A: AD

Quantity B: BC

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）107：Easy）

5. x is an angle

If the complementary angle of x < x <half of the supplementary angle of x, then what' s the range of x?

A. 30<x<60

B. 30<x<90

C. 45<x<60

D. 45<x<90

E. 60<x<90

（来源： GRE 数学最新最快最全机经 600 题（三）164：Easy）

4.2 多边形专题

[专项练习]

测试用时	正确率	错题编号
/min	/8	

1. If each interior angle of a regular polygon lies between 100° and 130°, then the polygon could be?

Indicate ***all*** such integers.

A. Pentagon

B. Hexagon

C. Heptagon

D. Octagon

E. Nonagon

F. Decagon

（来源： GRE 数学最新最快最全机经 600 题（二）5：Medium）

2.

Quantity A: The sum of interior angles of a pentagon plus 90°

Quantity B: The sum of interior angles of a hexagon

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）9：Easy）

3.

Quantity A: The average degree of all interior angles in a trapezoid

Quantity B: The average degree of all interior angles in a pentagon

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）88：Easy）

4. If the sum of interior angles of Polygon A is 360° greater than Polygon B, then how many more sides does Polygon A have?

（来源： GRE 数学最新最快最全机经 600 题（三）195：Easy）

5. The perimeter of a regular pentagon is twice the perimeter of an equilateral triangle.

Quantity A: The side of the pentagon

Quantity B: The side of the equilateral triangle

A. Quantity A is greater.

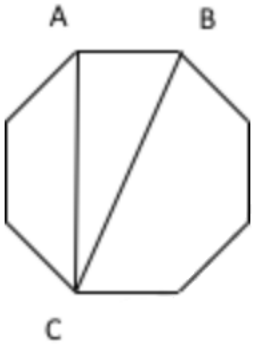
B. Quantity B is greater.

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）31：Easy）

6. In the figure below is a regular octagon. Each side has a length of 1. What is the area of △ABC?



A. $1+\sqrt{2}$

B. $2+\sqrt{2}$

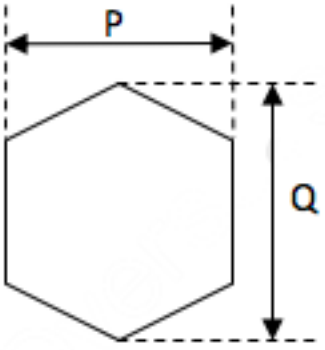
C. $(1+\sqrt{2})/2$

D. $(2+\sqrt{2})/2$

E. Cannot be determined

（来源： GRE 数学最新最快最全机经 600 题（一）95：Easy）

7. The figure below is a regular hexagon.



Quantity A: P

Quantity B: Q

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）119：Medium）

8.

Quantity A: The perimeter of a regular pentagon

Quantity B: The perimeter of the pentagon formed by connecting all the midpoints on each sides of the regular pentagon

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）12：Medium）

4.3 三角形专题

[专项练习]

测试用时	正确率	错题编号
/min	/19	

1. The length of the three sides of a triangle is 13, 13 and 10

Quantity A: The area of the triangle

Quantity B: 65

A. Quantity A is greater.

B. Quantity B is greater.

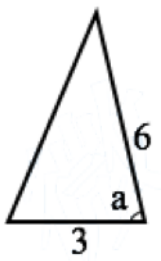
C. The two quantities are equal.

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）36：Easy）

2. **Quantity A:** a

Quantity B: 60°



A. Quantity A is greater.

B. Quantity B is greater.

C. The two quantities are equal.

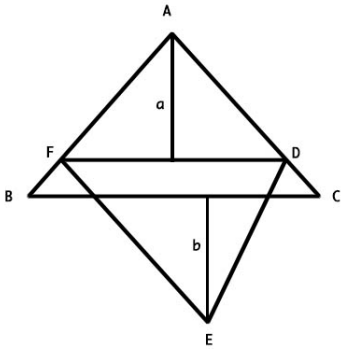
D. The relationship cannot be determined from the information given.

（来源： GRE 数学最新最快最全机经 600 题（二）112：Easy）

3. a=b, FD||BC

Quantity A: The area of △ABC

Quantity B: The area of △DEF



A. Quantity A is greater.

B. Quantity B is greater.

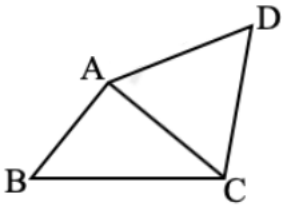
C. The two quantities are equal.

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）71：Easy）

等腰三角形

4. AB=8, BC=12. The perimeter of the quadrilateral ABCD is 34. If AB=AC, then what is the perimeter of △ADC?



（来源： GRE 数学最新最快最全机经 600 题（三）141：Easy）

5. In △ABC, AB=2, △ABD is an equilateral triangle. Which of the following side can be known?

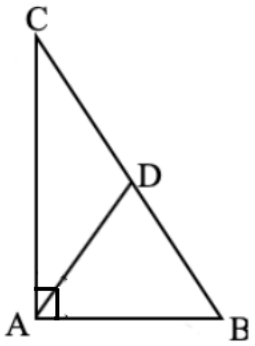
Indicate ***all*** such sides.

A. AC

B. BC

C. BD

D. AD



（来源： GRE 数学最新最快最全机经 600 题（三）142：Easy）

6. Two sides of an isosceles triangle have lengths 5 and 5.

Quantity A: The perimeter of the triangle

Quantity B: 15

A. Quantity A is greater.

B. Quantity B is greater.

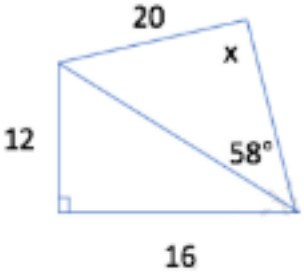
C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

（来源： GRE 数学最新最快最全机经 600 题（二）：Easy）

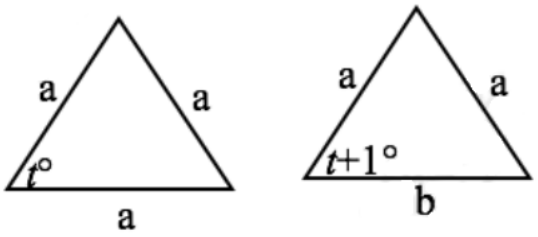
7. What is the value of x?

°



（来源： GRE 数学最新最快最全机经 600 题（一）37：Easy）

8.



Quantity A: a

Quantity B: b

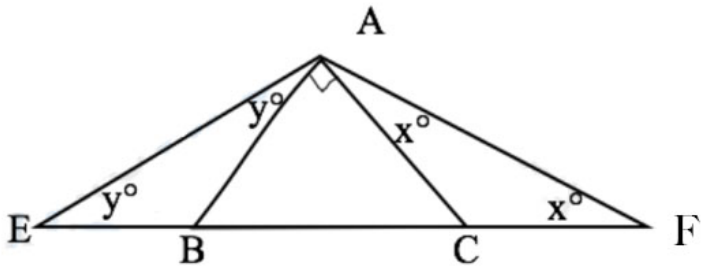
A. Quantity A is greater.

B. Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

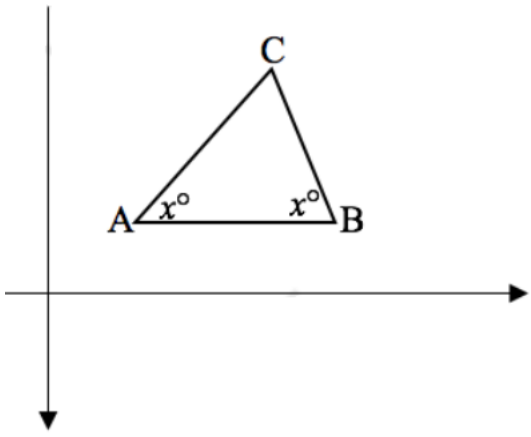
（来源： GRE 数学最新最快最全机经 600 题（三）64：Easy）



9. In the figure above, the length of BE is 4, and the length of CF is 3, what is the perimeter of triangle ABC?

（来源： GRE 数学最新最快最全机经 600 题（三）84：Easy）

10. The x-coordinate of A is 0.5, the x-coordinate of B is 2, while their y-coordinates are the same.



Quantity A: x-coordinate of C

Quantity B: 1.75

A. Quantity A is greater.

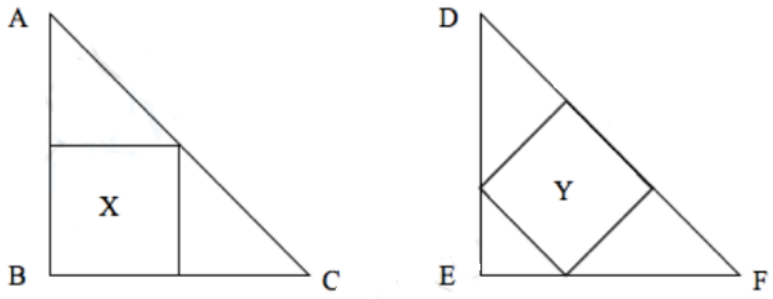
B. Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

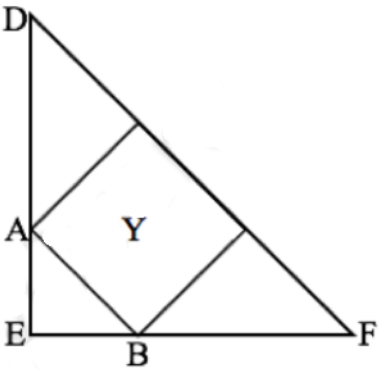
（来源： GRE 数学最新最快最全机经 600 题（三）93：Medium）

等腰直角三角形



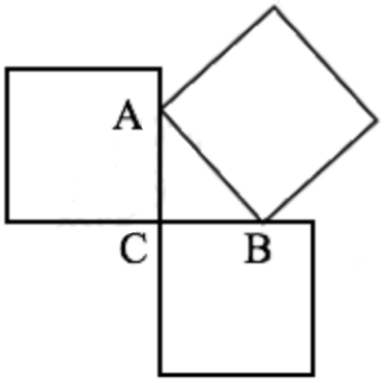
11. △ABC and △DEF are congruent triangles, and AB=BC, ∠B=∠E=90°. If the area of square X is 441, what is the area of square Y?

（来源： GRE 数学最新最快最全机经 600 题（二）18：Medium）



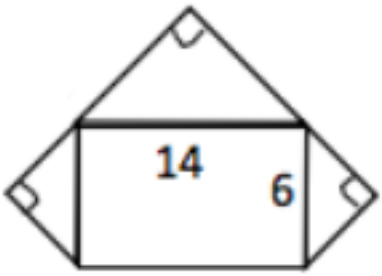
12. △DEF is a right isosceles triangle with area of 1, ∠E=90°. Square Y is inscribed in the triangle, what is the area of △ABE?

（来源： GRE 数学最新最快最全机经 600 题（二）82：Medium）



13. The figure above is three congruent square. The bottom side of the left square aligns with the top side of the bottom square. The area of each square is 4, AC=BC. What' s the perimeter of △ABC?

（来源： GRE 数学最新最快最全机经 600 题（二）80：Medium）



14. In the rectangle, the length is 14, and the width is 6. If the three triangles besides the rectangle are all regular isosceles triangle, then the area of the entire figure is?

（来源： GRE 数学最新最快最全机经 600 题（一）131：Medium）

等边三角形

15. An equilateral triangle has a side of 6

Quantity A: The area of the triangle

Quantity B: 18

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）92：Easy）

等腰三角形&等边三角形

16. Both and isosceles triangle and an equilateral triangle have a height of 20

Quantity A: The area of the isosceles triangle

Quantity B: The area of the equilateral triangle

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）123：Medium）

锐角钝角三角形的判定

17. The length of three sides of a triangle is 3, 4 and y. If none of the interior angles of the triangle is more than 90°, then the range of y is?

A. $1<y<5$

B. $1<y<6$

C. $\sqrt{7}<y<5$

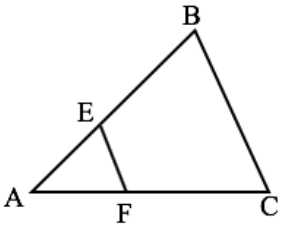
D. $\sqrt{7}<y<6$

E. $2<y<5$

（来源： GRE 数学最新最快最全机经 600 题（一）38：Easy）

相似与全等

18. In △ABC, AE = 1/2 BE, EF is parallel with BC. If EF = 5, what is the length of BC?



（来源： GRE 数学最新最快最全机经 600 题（二）114：Easy）

19. The area of the shaded area is 1/3 that of △PQR.

Quantity A: PS

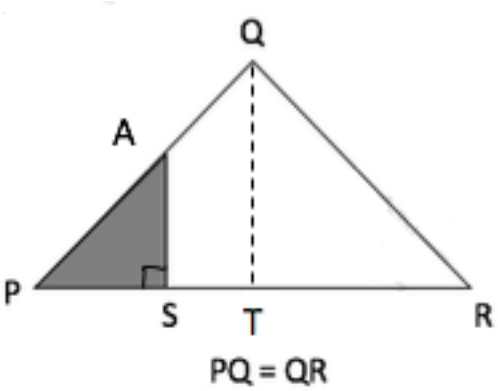
Quantity B: 1/3PR

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.



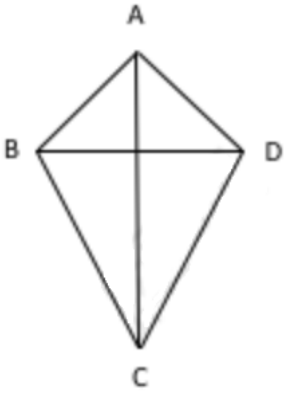
（来源： GRE 数学最新最快最全机经 600 题（一）42：Medium）

4.4 四边形专题

[专项练习]

测试用时	正确率	错题编号
/min	/7	

1.



Quantity A: The sum of the two diagonals of quadrilateral ABCD

Quantity B: The perimeter of the quadrilateral ABCD

A. Quantity A is greater.

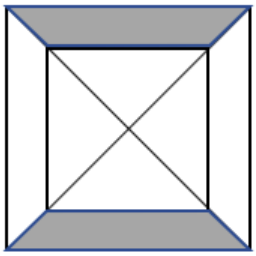
B. Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

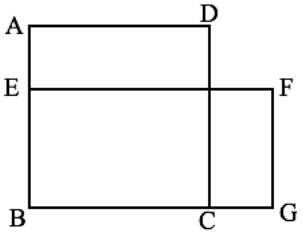
（来源： GRE 数学最新最快最全机经 600 题（一）100：Medium）

2. The sides of the two squares is 4 and 6, respectively. What is the area of the shaded region?



（来源： GRE 数学最新最快最全机经 600 题（二）186：Medium）

3. The quadrilateral ABCD is a square, and EFGB is a rectangle, AE=CG



Quantity A: The area of ABCD

Quantity B: The area of EFGB

A. Quantity A is greater.

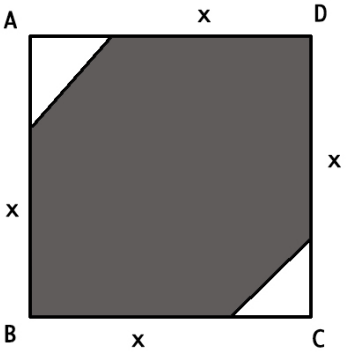
B. Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

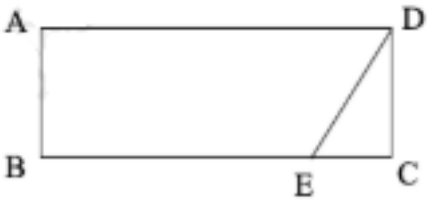
（来源： GRE 数学最新最快最全机经 600 题（二）199：Easy）

4. In square ABCD, the side of each side is 15, If the area of the shaded area accounts for 75% of the total area of the entire square, then what is the value of x?



（来源： GRE 数学最新最快最全机经 600 题（一）89：Easy）

5. If the area of △EDC is 12 and BE:EC=3:2, what is the area of trapezoid ADEB?



（来源： GRE 数学最新最快最全机经 600 题（三）33：Easy）

三角形&四边形复合

6. The area of a square is equal to the area of an equilateral triangle

Quantity A: The side of the square

Quantity B: The side of the triangle

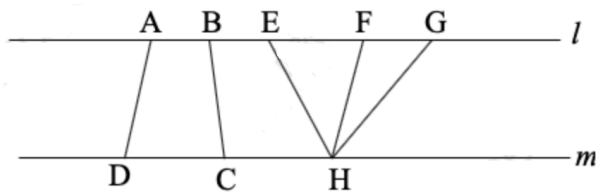
A. Quantity A is greater.

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）104：Easy）



7. Line l is parallel with line m, EF=CD, FG=AB

Quantity A: The area of trapezoid ABCD

Quantity B: The area of △EGH

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）88：Easy）

4.5 圆与扇形专题

[专项练习]

测试用时	正确率	错题编号
/min	/20	

1. A circle is inscribed in a square

Quantity A: The area of the circle

Quantity B: One-half of the area of the square

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）138：Easy）

2. The circumference of a circle is π.

Quantity A: The area of the circle.

Quantity B: π/4

A. Quantity A is greater.

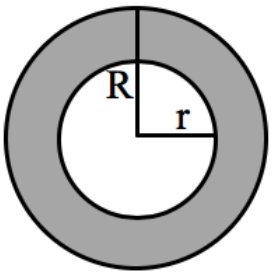
B. Quantity B is greater.

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）156：Easy）

3. R and r are two radii of the larger and smaller circle, respectively, if the ratio of R to r is 3. The shaded region is what percentage of the larger circle?



（来源： GRE 数学最新最快最全机经 600 题（二）146：Easy）

4.

Quantity A: The area of a circle with radius r

Quantity B: The area of a circle with radius r^2

A. Quantity A is greater.

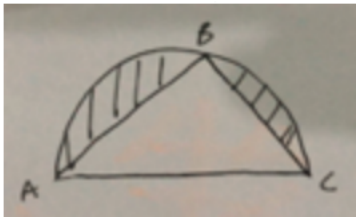
B. Quantity B is greater.

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（一）172：Easy）

5. The triangle is inscribed in the semi-circle. If AB=12, BC=10, what is the area of the shaded area?

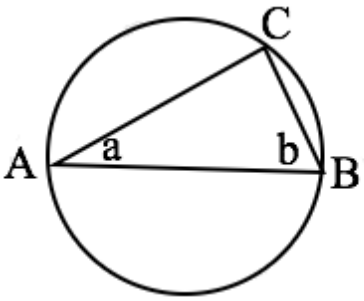


（来源： GRE 数学最新最快最全机经 600 题（二）30：Medium）

6. A triangle is inscribed in the circle, AB is the diameter of the circle,

Quantity A: 90°

Quantity B: a+b



A. Quantity A is greater.

B. Quantity B is greater.

C. The two quantities are equal.

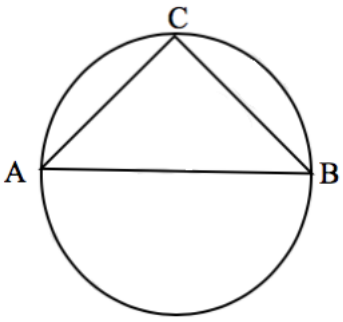
D. The relationship cannot be determined from the information given.

（来源： GRE 数学最新最快最全机经 600 题（三）22：Easy）

7. △ABC is inscribed in a circle, where AB is the diameter of the circle.

Quantity A: Five times the area of △ABC

Quantity B: The area of the circle



A. Quantity A is greater.

B. Quantity B is greater.

C. The two quantities are equal.

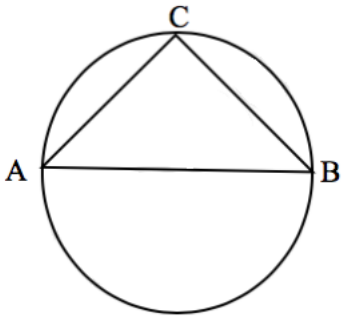
D. The relationship cannot be determined from the information given.

（来源： GRE 数学最新最快最全机经 600 题（三）59：Medium）

8. The radius of the circle is x, AB is the diameter of the circle, and C is a point randomly selected on the circle.

Quantity A: The perimeter of △ABC

Quantity B: 4x



A. Quantity A is greater.

B. Quantity B is greater.

C. The two quantities are equal.

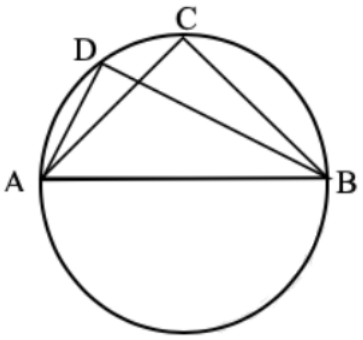
D. The relationship cannot be determined from the information given.

（来源： GRE 数学最新最快最全机经 600 题（三）102：Medium）

9. AB is the diameter, AC=BC

Quantity A: The area of △ADB

Quantity B: The area of △ACB



A. Quantity A is greater.

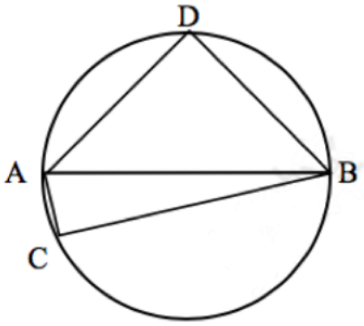
B. Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

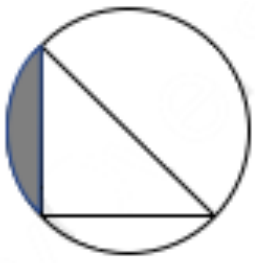
（来源： GRE 数学最新最快最全机经 600 题（三）105：Medium）

10. AB is the diameter of the circle, ∠CBD=65°, what's the value of ∠CAD?



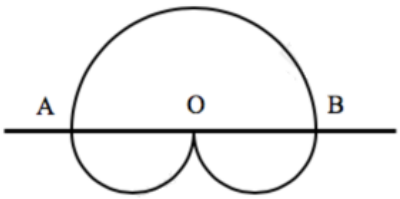
（来源： GRE 数学最新最快最全机经 600 题（二）67：Medium）

11. An isosceles triangle is inscribed in a circle, and the base is the diameter of the circle whose radius is 5. What is the area of the shaded area?



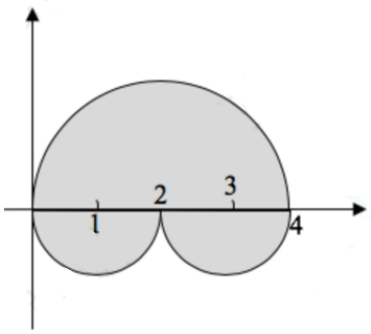
（来源： GRE 数学最新最快最全机经 600 题（一）164：Medium）

12. If the sum of the area of the three semi-circle is 48π, what is the length of AB?



（来源： GRE 数学最新最快最全机经 600 题（二）43：Easy）

13. In the xy-plane, the shaded area below is composed by three semi-circles. What is the area of the shaded area?

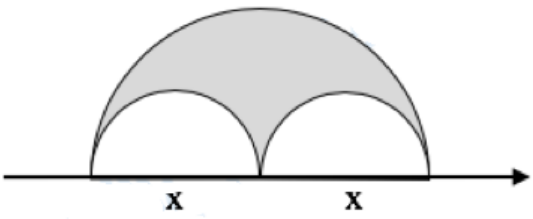


（来源： GRE 数学最新最快最全机经 600 题（二）89：Easy）

14. The figure above is a large semi-circle with radius x and two smaller semi-circles with diameter x.

Quantity A: The area of the shaded region

Quantity B: The sum of the two small semi-circle.



A. Quantity A is greater.

B. Quantity B is greater.

C. The two quantities are equal.

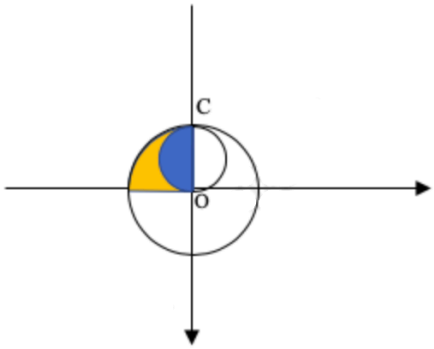
D. The relationship cannot be determined from the information given.

（来源： GRE 数学最新最快最全机经 600 题（二）197：Easy）

15. In the xy-plane, Point (6, -8) is on a circle whose center is the origin. If a square is inscribed in the circle, what is the area of the square?

（来源： GRE 数学最新最快最全机经 600 题（二）89：Easy）

16. OC is the diameter of the smaller circle, but the radius of the larger circle. O is the center of the larger circle.



Quantity A: The area of the blue region

Quantity B: The sum of the yellow region

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.

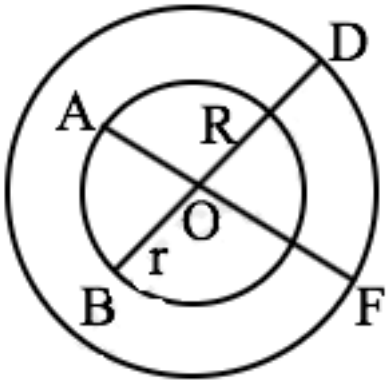
（来源： GRE 数学最新最快最全机经 600 题（三）154：Easy）

弧与扇形

17. In a circle, Sector A has a central angle of 80° and an arc of 6. Sector B is besides Sector A and has an arc of 3. What' s the length of the rest arc (deducting the two arcs from the circumference of the circle)?

（来源： GRE 数学最新最快最全机经 600 题（一）176：Easy）

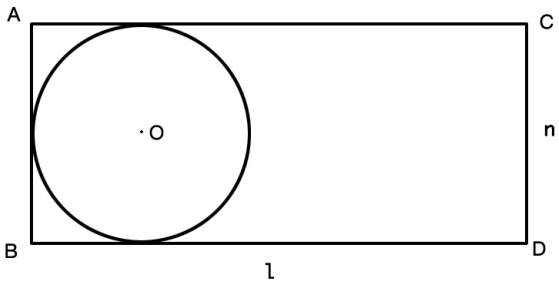
18. R and r are two radii of the greater and smaller circle, respectively. What is the ratio of minor arc AB to minor arc DF? Give your answer using R and r.



（来源： GRE 数学最新最快最全机经 600 题（三）66：Easy）

圆与其他图形复合

19. In the figure above, Circle O is tangent to three sides of the rectangle ABCD. BD=l, CD=n, and area of rectangle ABCD is four times of the area of Circle O.



Quantity A: l/n

Quantity B: π/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（一）83：Easy）

20. The area of a circle is equal to the area of a square

Quantity A: The perimeter of the circle

Quantity B: The perimeter of the square

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）36：Easy）

4.6 三维图形专题

[专项练习]

测试用时	正确率	错题编号
/min	/4	

1. A right cylinder is inscribed in a cube. What is the ratio of the volume of the cylinder to the volume of the cube?

A. π/4

B. π/2

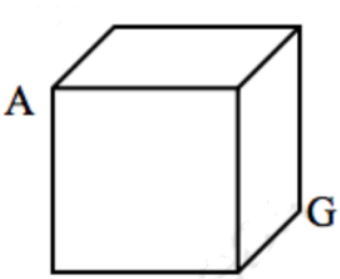
C. π/8

D. π/16

E. 3π/4

（来源： GRE 数学最新最快最全机经 600 题（二）55：Easy）

2. The figure above is a cube, AG=$2\sqrt{3}$, what' s the side of the cube?



（来源： GRE 数学最新最快最全机经 600 题（二）66：Easy）

3. If a container can hold 3 cubic feet of goods (1yard=3feet), then 100 such containers can hold n cubic yard of goods

Quantity A: n

Quantity B: 13

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）110：Easy）

4. If it costs $400 to print the four walls and the floor of a house whose length is twice of its width and whose width and height are the same ($10 per square feet), what' s the length of the house?

（来源： GRE 数学最新最快最全机经 600 题（三）70：Easy）