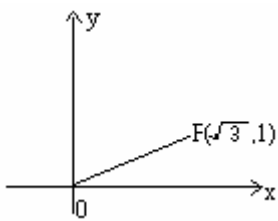


1. The area of triangular region BCD is 1.

The area of region ABGF 3.5

【陷阱】题目未说 B、D 是中点。不要自己假设条件。类似的还有某两直线看似平行、某两线段看似等长…… 总之它会画得很逼真来诱惑你“想入非非”，而事实上它并没有说。



2. In the rectangular coordinate system, segment OP is rotated counterclockwise through an angular of 90° to position OQ (not shown).

The x-coordinate of point Q -1

【当心】counter- 读题看准关键词。

3. In an election each voter voted for one of two candidates, X and Y. The number of votes that Candidate X received was $\frac{1}{3}$ more than the number of votes that Candidate Y received.

The fraction of the total vote that Candidate X received $\frac{4}{7}$

【当心】“ $\frac{1}{3}$ more than” 不是 $X-Y=\frac{1}{3}$, 而是 $(X-Y)/Y=\frac{1}{3}$ 。

典型的题目，国内题里无论是比较大小题还是图表题都喜欢出这个。

4. If $4x+3=8$ and $x/2=1/4$, what is the value of y? (key: 2)

【当心】这个当心简单的问题别计算错，错了很可惜。

5. In 1985 the number of square kilometers per 100 motor vehicles in Country C was approximately...

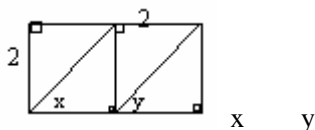
【理解】题干的意思让你由总车数和单位面积车数算面积数，一个简单的除法。

6. $d=5.03894$ and \dot{d} is the decimal expression of d rounded to the nearest thousandth.

The number of decimal places where d and \dot{d} differ 4

【理解】deci- 是表示“十分之一”的词根，百分之一：centi-，千分之一：milli-，百万分之一：micro-，十亿分之一，纳：nano-。

本题 $\dot{d}=5.039$ ，与 $d=5.03894$ 在小数部分不同有 3 位， $3 < 4$ 。



7. x y

【陷阱】看看第 1 题…… 嗯，这里没告诉角 x 的直角边是不是 2。做对了么？呵呵。

8. What is the ratio of the perimeter of a pentagon with each side of length 6 to the perimeter of an octagon with each side of length 6? (key: 5/8)

【理解】pentagon 五边形 octagon 八边形

词头: 3:tri-; 4: quadric-, quadru-, quart-, tetr-, tetra-; 5: pent-; 6: hex-; 7. hepta-, sept-; 8: oct-; 9: enne-, nona-; 10: deca-, deka-

9. The amount by which the rescue squad's mortgage expenses exceeded expenses for utilities was what percent of expenses for utilities? (key: 200 %)

【当心】同第 3 题。exceed 是变相的 more than。这次你做对了吗? ^_^

10. If a and b are positive integers, then the ratio of a/b to its reciprocal is... (key: a^2/b^2)

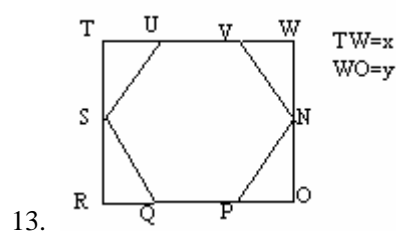
【理解】reciprocal 倒数

11. $2 > 3a > 0$ a a^2

【理解】 $a < 1$

12. The total surface area of a rectangular solid with length 6, width 4, and height 5. 120

【当心】不要看到长方体就想算体积，人家问的是表面积... 类似的还有圆柱体等...



Polygon SUVNPQ is equilateral and equiangular and TWOR is a rectangle.

x/y 1

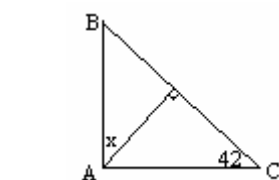
【当心】这题要当心视觉欺骗。当然，我画出来的图很容易看出来哪个长，可是 ETS 画的图研究了半天都觉得一样长... 还是别做太快，理性分析吧...

六边形的内角和 = $(6-2) \times 180^\circ = 720^\circ$ ， \therefore 每个角 $720^\circ / 6 = 120^\circ$ 。

设 $TU=a$ ，则 $TS=\sqrt{3}a$ ， $UV=US=2a$ ， $\therefore x=a+2a+a=4a$ ， $y=2\sqrt{3}a$ 。

$x/y=4/2\sqrt{3}=2/\sqrt{3}>1$ 。

如果考场上你能一眼识破更好：)



In the figure above, if $\angle CAB$ is a right angle, then $x=$ ____

C. 42 E. 48

【当心】多次余角转换的时候要小心，这个转换算少的。答案是 C。PS: ETS 不会让你轻易从图像看出来滴。

15. If x is an integer and $x^2 < 37$, what is the greatest possible value of x minus the least possible value of x ?

B. 6 D. 12

【理解】6-(-6)，答案 D。注意 “integer” 是 “整数”，看到这个单词和平方即要警觉地想起负数。

16. p and q are different prime numbers. R is the least prime number greater than p , and s is the least prime number great than q .

$r-p$ $s-q$

【理解】prime number 素数。类似名词参见数学词汇。

17. $\triangle RST$ is isosceles and $\angle RST = 40^\circ$.

The sum of the measures of the two angles of $\triangle RST$ that have equal measure 120°

【当心】isosceles: 二等边的，等腰的。立刻想到顶角为锐角和钝角两种情况。

18. The greatest number of diagonals that can be drawn from one vertex of a regular 6-sided polygon is ____

【理解】diagonal: 对角线。Vertex: 顶点。类似名词参见数学词汇。

19. Which of the following is equal to $1/4$ of 0.01 percent? (key: A.0.000025)

【当心】是 0.01% 的 $1/4$ 。小数点多时一定要写写。

20. The number 0.01 is how many times as great as the number $(0.0001)^2$? (key: 10^6)

【当心】幂的次数太多时一定要写写。我也原以为口算一下就 OK 的。

21. The perimeter of a rectangle that has an area of 48 and a diagonal of length 10 The circumference of a circle that has a radius of length $14/\pi$

【理解】左边说的不就是一个边长 6, 8, 10 的直角三角形么？实在想不起来画个图就恍然大悟。我当时没想起来 $=p$

22. The average (arithmetic mean) of a set of n test score is 80. The average (arithmetic mean) of these n scores together with a score of 85 is 81.

n 5

【理解】 $(80n+85)/(n+1)=81$, $n=4$ 。千万表把 test score 当成某个数学名词就好。

嗯~~ 祝每个 GTER 数学满分 ^_^

Yours,
Esther.Li
September 7, 2006