7. 数学王子

shù xué wáng zǐ

著名数学家高斯出生在一个贫困的农村家庭。他在数学方面极具天赋，三岁就可以纠正父亲账本的错误，实在了不起！当时从城里来的数学老师，总觉得乡村的孩子不如城市里的孩子聪明伶俐，数学基础也不好。

一天，为了训练学生做加法的能力，老师给学生们出练习题时说："你们算一算1加2加3……一直加到100等于多少？"学生们听了，便拿出笔和纸开始计算。

不一会儿，小高斯举起手说："老师，我算出来了…"
还没等小高斯说完，老师连纸张也没看一眼，就说："错了，重新再算！"

Prince of Math.

The famous mathematician Gauss was born in a poor rural family. He was very talented in mathematics, and he can correct the mistakes in his father's ledger at the age of three, it was amazing! At that time, the math teacher who came from the city always felt that the children in the countryside were not as smart as the children in the city, and their math foundation were not good as well.

One day, to train the students' ability to do addition, the teacher gave the students an exercise and said: "You count, 1 plus 2 plus 3... until 100, what is the answer?" After hearing this, the students took out pen and paper and started counting.

After a short while, little Gauss raised his hand and said, "Teacher, I got the answer..."

Before little Gauss finished speaking, the teacher didn't even glance at the paper, and said: "It's wrong, calculate again!"

小高斯敏捷地把算式重新检查了一遍，高声说："老师，我没有算错！"说完便走出座位，把纸张伸到了老师的面前。原本不愿被打搅的老师低头一看，只见上面端端正正地写着"五千零五十"，他不禁大吃一惊。

他简直不敢相信，这种复杂的运算题，一个小学二年级的学生，竟然能迅速地得出正确答案。于是，他问小高斯："你是怎么算出来的？"

小高斯回答说："我不是按照1加2加3……的次序一个一个往上加的。老师，您看，一头一尾的两个数的和，都是一样的。1加100是101，2加9是101，3加98也是101……把一前一后的数相加一共有50个101。最后，101乘以50，就得出5050。"

Little Gauss quickly checked the formula again, and said loudly: "Teacher, I did not make any mistake!" After speaking, he walked out of his seat and stretched out the paper in front of the teacher. The teacher, who didn't want to be disturbed at first, looked down and saw "five thousand and fifty" written on it, and he couldn't help being surprised.

He couldn't believe that such a complicated calculation, could be solved so quickly by a student in the second grade of elementary school. So he asked little Gauss: "How did you figure it out?"

Little Gauss replied: "I didn't add one by one in the order of 1 plus 2 plus 3... Teacher, look, the sum of the two numbers at the beginning and the end is the same. 1 plus 100 is 101 , 2 plus 9 is 101 , 3 plus 98 is also 101... Adding the numbers one after the other has a total of 50 pairs of 101s . Finally, I multiplied 101 by 50 to get 5050."

听了小高斯的回答，老师感到大为震惊，因为这是他第一次知道，这道数学题有这样的一个计算方法。他惊喜地看着这个穿得破烂不堪的学生。

"这是谁家孩子啊？真聪明！"

爱才的老师决定对小高斯进行专门的栽培，特意从大城市买了一本最好的算术书送给小高斯，以满足小高斯的求知欲望。

小高斯小学毕业后，老师还联络当地的人来当他的赞助人，让他获得免费的中学教育，此后更顺利进入大学深造。

After hearing Gauss's answer, the teacher was shocked, because this was the first time he knew that this math problem can be calculated this way. He looked with surprise at the shabbily dressed student.

"Whose child is this? You are so smart!"

The teacher appreciated his talent and decided to train the little Gauss, he and bought the best arithmetic books from the big city for the little Gauss, to satisfy the little Gauss' thirst for knowledge.

After Little Gauss graduated from elementary school, the teacher even contacted the locals to be his sponsors, allowing him to obtain free middle school education. Gauss even entered university to further his studies.

大学的教授常常给高斯出数学题。这天有点奇怪，以前教授每天总是给高斯三道题，今天却破例给了四道题。前三题高斯在两个小时内就顺利完成了。可是，第四题要求只用圆规和一把没有刻度的直尺画出一个正十七边形，他绞尽脑汁也没有画出来。

时间一分一秒地过去，已经是凌晨两点了，第四题仍然毫无进展。他发现，自己学过的所有数学知识，似乎对解开这道题一点帮助也没有。然而，这样的挫败反而激起了高斯的斗志：索性彻夜不眠，一定要把它画出来！

当窗口露出曙光，高斯长舒了一口气，他终于按要求画出了一个漂亮的正十七边形！

The university professor often gave Gauss math problems. This day is unusual; in the past, the professor always gives Gauss three questions every day, but today he made an exception and gave him four. Gauss successfully completed the first three questions within two hours. However, in the fourth question he was asked to draw a regular heptagon with only a compass and a ruler without scale. He cracked his head and failed to draw it.

Time passed by, it was already two o'clock in the morning, and there was still no progress on the fourth question. He found that all the mathematics knowledge he had learned didn't seem to help solve this problem at all. However, such a setback ignited Gauss' fighting spirit: he simply stayed up all night and determined to complete it!

The light appeared in the window , Gauss heaved a sigh of relief when he finally drew a beautiful regular heptagon as required!

Additional note: compass here refers to the geometric tool for drawing circle (in Malay – Jangka Lukis), not the compass for direction.

早晨，高斯带着这四道数学题的答案去见教授。他内疚地对教授说："您给我出的第四题，我竟然做了整个通宵。我辜负了您对我的期望……"

教授接过高斯的作业一看，用颤抖的声音问高斯："这真的是你自己做出来的吗？你做了多少次呀？"

高斯有些疑惑地看着教授，回答说："是我花了整整一个通宵做的，做了无数次！"

教授取出圆规和直尺，在书桌上铺开纸，让他在自己的面前再画出一个正十七边形。
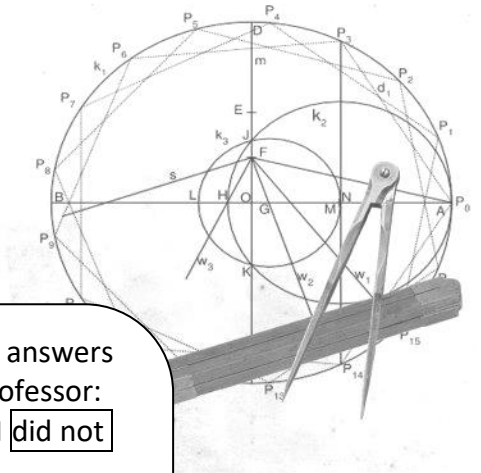
In the morning, Gauss went to see the professor with the answers to the four math problems. He felt guiltily and said to the professor: "The fourth question you gave me, I actually took all night. I did not meet up to your expectations……"

The professor took Gauss' homework and asked Gauss in a trembling voice: "Did you really do this yourself? How many times did you try?"

Gauss looked at the professor feeling confused, and replied, "It took me a whole night to do it, and I did it countless times!"

The professor took out the compasses and ruler, spread the paper on the desk, and asked him to draw another heptagon in front of him.

当高斯完成后，教授激动地对他说："你知道吗？你解开了一道已有两千多年历史的数学难题！这个难题就连阿基米德和牛顿都没能解答，你竟然只用一个晚上就完成了，你真是一名数学天才！"

原来，教授也一直想解答这道数学难题。那天，他一时失误才将写有这题目的纸张夹在高斯的作业里。

后来，高斯被人们称为"数学王子"。

When Gauss finished, the professor excitedly said to him: "Did you know? You have solved a mathematical problem of more than two thousand years old! Not even Archimedes or Newton could solve this problem. And you managed to do it in one night, you're a math genius!"

It turned out that the professor had always wanted to solve this mathematical problem. That day, he made a mistake and clipped the paper together with Gauss's homework.

In the end, Gauss is known as the "Prince of Mathematics".

今日看古诗 **53** KPM

fēng
风 唐·李峤

jiě luò sān qiū yè
解落三秋叶，
néng kāi èr yuè huā
能开二月花。
guò jiāng qiān chǐ làng
过江千尺浪，
rù zhú wàn gān xié
入竹万竿斜。