

2008年职称英语考试阅读判断试题训练(十一) PDF转换可能丢失图片或格式，建议阅读原文

https://www.100test.com/kao_ti2020/470/2021_2022_2008_E5_B9_B4_E8_81_8C_c67_470394.htm 11 . Fermi Problem 费米问题

On a Monday morning in July, the world's first atom bomb exploded in New Mexico desert. Forty seconds later, the shock waves reached the base camp where the Italian-American physicist Enrico Fermi and his team stood. After a mental calculation, Fermi announced to his team that the bomb's energy had equated 10,000 tons of TNT. The bomb team was impressed, but not surprised. Fermi's genius was known throughout the scientific world. In 1938 he had won a Nobel Prize. Four years later he produced the first nuclear chain reaction, leading us into the nuclear age. Since Fermi's death in 1954, no physicist has been at once a master experimentalist and a leading theoretician. Like all virtuosos, Fermi had a distinctive style. He preferred the most direct route to an answer. He was very good at dividing difficult problems into small, manageable bits—talent we all can use in our daily lives. To develop this talent in his students, Fermi would suggest a type of question now known as a Fermi problem. Upon first hearing one of these, you haven't the remotest notion of the answer, and you feel certain that too little information had been given to solve it. Yet when the problem is broken into sub-problems, each answerable without the help of experts or books, you can come close to the exact solution. Suppose you want to determine earth's circumference without looking it up. Everyone knows that New York and Los Angeles are about 3,000 miles apart and that the time

difference between them is three hours. Three hours is one-eighth of a day, and a day is the time it takes the planet to complete one rotation, so its circumference must be times 3,000 or 24,000 miles.

This answer differs from the true value, 24,902.45 miles, by less than four percent. Ultimately the value of dealing with everyday problems the way Fermi did lies in the rewards of making independent discoveries and inventions. It doesn't matter whether the discovery is as important as determining the power of an atom or as small as measuring the distance between New York and Los Angeles.

Looking up the answer, or letting someone else find it, deprives you of the pleasure and pride that accompany creativity, and deprives you of an experience that builds up self-confidence. Thus,

approaching personal dilemmas as Fermi problems can become a habit that enriches your life. 7月的一个星期一早上，世界上第一颗原子弹在新墨西哥沙漠上爆炸了。40秒钟以后，这个震动波传到了美籍意大利人、物理学家恩里科费米和他的队员们所驻扎的基地。经过大脑计算，费米向他的队员们宣布爆炸的原子弹的能量相当于1万吨烈性炸药。费米的话给队员们留下深刻的印象，但他们并不惊奇。费米的天才闻名于整个科学界。他在1938年就已获得诺贝尔奖。四年之后，他创造了第一次原子核的链反应，带领我们进入了原子时代。自1954年费米去世后，还没有哪一位物理学家同时是一名精通的实验主义者和一名最主要的理论家。像所有的艺术家一样，费米有他自己的独特风格。他喜欢用最直接的路径去解决问题。他非常善于把困难问题分解成小的可以解决的小部分这种能力我们在日常生活中都可以使用。为了开发他的学生们的

才能，费米会提出一种现在称之为费米问题的问题。当你听到这样一个问题时，你对问题的答案丝毫都不知道，你肯定会认为所提供的信息太少了，因而无法解决它。但是当这个问题被分解为几个次级问题，每个问题不用求教专家或书本都能解答时，你就接近于得到准确的答案。假设你想不通过查阅而确定地球周长。每个人都知道纽约离洛杉矶大约3 000英里远，且两地的时区差为3小时。3小时是一天的 $1/8$ ，一天刚好是地球完成一次公转的时间。所以它的周长肯定是3 000英里的八倍，即24 000英里。这个答案与真正的地球周长值24 902.45英里只相差不足4%。最后，以费米处理问题的方式解决日常问题的价值在于独立发现和发明的回报。这个发明是否像确定一颗原子的能那样重要还是像度量纽约和洛杉矶之间的距离那样细小都没有关系。查找这个答案，或是让其他人去发现它，都是剥夺你随创造而来的欢乐与自豪，剥夺了你建立自信心的一次经历。所以，用费米问题解决个人困境能形成一种使你的生活丰富多彩的好习惯。

1).Fermi ' s team was impressed by Fermi ' s announcement in the base camp because he could even work out the power of the atom bomb in his mind.-R 2).Fermi, an experimentalist as well as a theoretician, won a Nobel Prize for producing the first nuclear chain reaction in the world.-W 3).Dividing a big problem into small problems is a talent Fermi had and a talent that has practical value in life.-R 4).Fermi problem is to develop the talent of breaking a seemingly unanswerable problem into sub-problems and finding the solution to it, which is a typical Fermi problem.-R 5).Then the fourth paragraph tells us how Fermi solved the problem of earth ' s

circumference without looking up.-W 6).The last paragraph concludes the whole writing by stressing the value of important inventions and small discoveries.-W 7).Fermi was famous for inventing a device to calculate bomb ' s energy accurately.-N

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