

## 《不只一點瘋狂》-「讀後感」

輔導團：臺北市國中數學輔導團

臺北市西湖國中 張美玲

### 壹、生平事蹟、想法 & 語錄

- 換個屋頂，換個證明 (another roof, another proof)
- 生命的意義在於猜想與證明。
- 最愛的是和他一樣喜愛數字的數學家，示愛的方式：敞開大腦，也敞開荷包。
- 17 歲時，知道 37 種畢氏定理的證明方法。
- 『100 減 250 等於多少？』 『0 下面的 150』
- 生涯「第二大發現」：雖然時間是無限的，但他的生命卻不然，後來以所謂的存在式證明而聞名。
- 其母親照料 Erdős 的日常起居，滿足他所有的期望，母子感情非常深厚。
- 18 歲時發表第一篇論文：用較簡潔方法證明了貝特朗假說(最早由俄國數學家查比契夫證明)，與印度天才數學家羅摩奴闍 (啟發了賽伯格等數學家)的證明很類似。
- 任何人只要能寫出美妙的證明與猜想，他願意不辭勞苦、費盡功夫去拜訪，不輕易打退堂鼓，不管時間地點。
- 1930 年代與法桑尼合作解決「無限的柯尼斯堡橋問題」，尤拉曾在 1736 年解出了柯尼斯堡橋問題。
- Erdős 可能是二十世紀最重要也最多產的組合學家，是從克蕾恩的問題開始的，組合學對於通訊網路和電腦設計有重要的影響。
- 拉姆西定理證明了完全的無秩序是不可能的，為了向一般聽眾解釋，Erdős 將之變成「宴會問題」，在客人當中，是否一定會有三個人是朋友，另外三個人彼此完全陌生？
- Erdős 的小猜想-關於一種叫做「切割」(dissection) 的幾何難題，改變了西方文明的命運，通常這種想法來自於長時間的塗寫和錯誤嘗試。
- 銀行倒閉的機會，倒是比數學難題被解答出來的機會要高得多。

### 貳、補充資料：參考 The MacTutor History of Mathematics

#### Archive

Erdős posed and solved problems in number theory and other areas and founded the field of discrete mathematics.

The contributions which Erdős made to mathematics were numerous and broad. However, basically Erdős was a solver of problems, not a builder of theories. The problems which attracted him most were problems in

combinatorics, graph theory, and number theory. He did not just want to solve problems, however, he wanted to solve them in an elegant and elementary way. To Erdős the proof had to provide insight into why the result was true, not just provide a complicated sequence of steps which would constitute a formal proof yet somehow fail to provide any understanding.

In 1949 Erdős and Atle Selberg found an elementary proof. Selberg and Erdős agreed to publish their work in back-to-back papers in the same journal, explaining the work each had done and sharing the credit. But at the last minute [Selberg ... raced ahead with his proof and published first](#). The following year Selberg won the Fields Medal for this work. [Erdős was not much concerned with the competitive aspect of mathematics and was philosophical about the episode](#).

This result was typical of the type of mathematics Erdős worked on. He posed and solved problems that were beautiful, simple to understand, but notoriously difficult to solve.

Erdős did receive the Cole Prize of the American Mathematical Society in 1951 for his many papers on the theory of numbers, and in particular for the paper [On a new method in elementary number theory which leads to an elementary proof of the prime number theorem](#) published in the *Proceedings of the National Academy of Sciences* in 1949.

## 參、寫讀書心得的方法

用心研讀 ⇨ 可自訂題目 ⇨ 擬定大綱 ⇨ 撰寫報告

第一段【摘要】大概介紹書中的內容

第二段【思考】看了這本書之後（印象最深刻的）（學到的新觀念）  
（獲得的啟示）（評論書中觀點——贊同或反對）

第三段【聯想】寫下自己相關的生活經驗

第四段【提升】把第二、三段的東西寫得更深入（體悟）或是舉反例

第五段【結語】歸納自己的重要觀點作結

- 閱讀心得是以「心得」為主，而非內容。
- 寫時可擷取書中的字句來當自己的佐證，這樣更具說服力。

※請學生寫下其心得（參考附件一）後，列印下來或 e-mail 寄給老師皆可※

附件一

班級：            座號：            姓名：

書名	不只一點瘋狂	作者		出版社	
閱讀日期			書籍來源	*班級書庫	*學校圖書館
內容摘要 Digest (至少 50 字)					
佳句選錄 Nice Sentences					
心得感想 Reading Impressio n (至少 100 字)					