

# 從閱讀中學習數學研討會

數學教育組

2007

# 程序

1. 簡介
2. 從閱讀中學習數學—經驗分享（一）  
蕭煜祥先生
3. 小息
4. 從閱讀中學習數學—經驗分享（二）  
文耀光博士
5. 在學校推動數學閱讀計畫的分享  
章潔玲女士
6. 討論

The background is a vibrant, abstract composition. It features a rainbow-like gradient of colors, including red, orange, yellow, green, and blue, which blend into each other. A prominent, glowing blue line runs diagonally across the right side of the image, starting from the top right and extending towards the bottom right. The overall texture is soft and ethereal, with a slight graininess.

內容是否可靠？

# 從費瑪大定理的初等證明說起（上）

- **Infinity or Not?**  
**An Arithmetical Satire**

**by Valery Chalidze**

**Universal Publishers**

# Gödel's incompleteness theorems

## 哥德爾不完全定理

任何一個公理系統中，都必定存在一個語句 $A$ ，無論 $A$ 或 $\sim A$ 都不能在這個系統中獲得證明。

任何一個足以容納數論的形式公理系統中，都必定存在一個語句 $A$ ，無論 $A$ 或 $\sim A$ 都不能在這個系統中獲得證明。

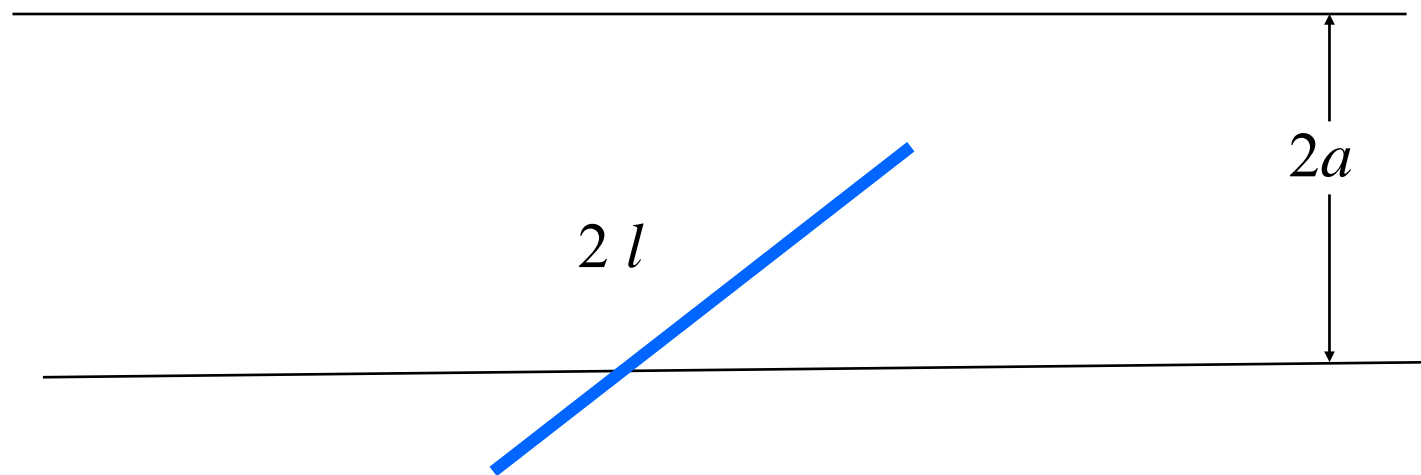
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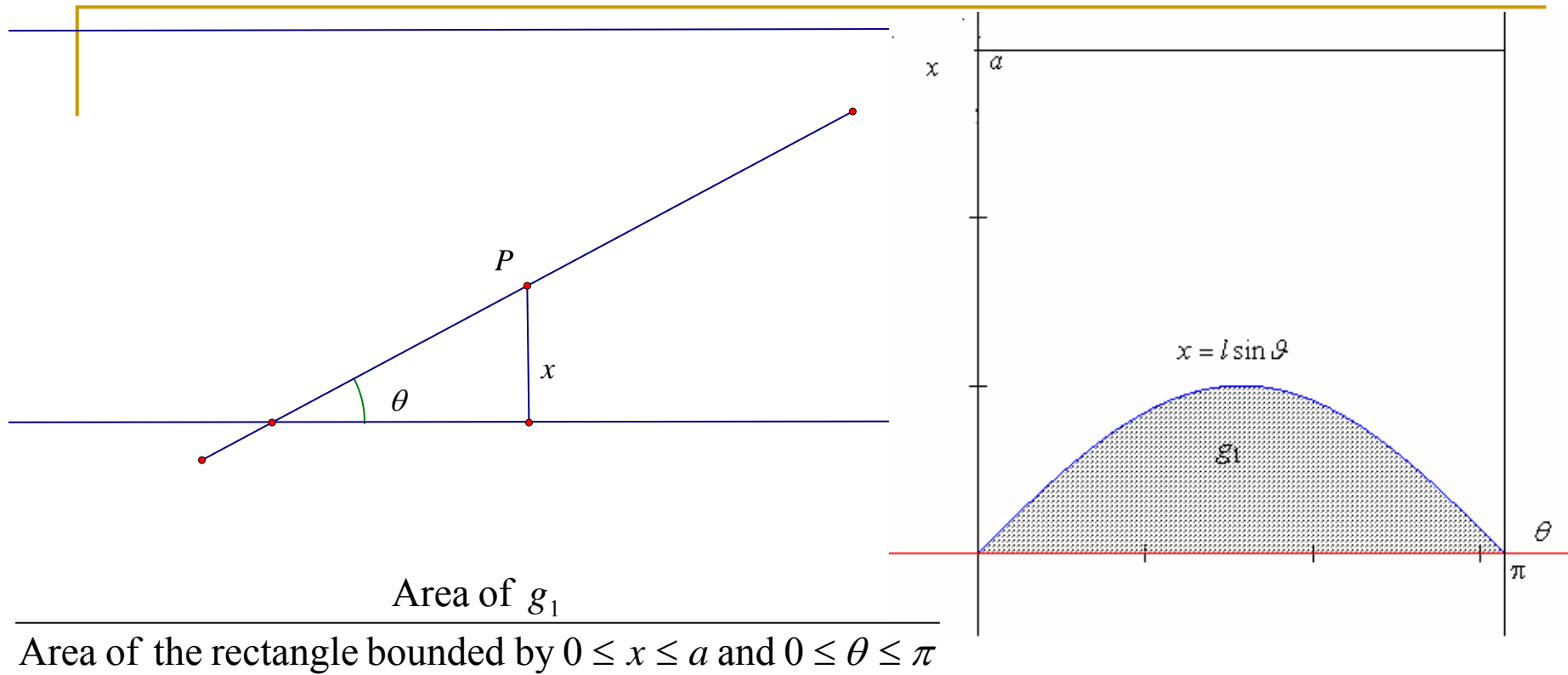
## 蒲豐投針問題 (Buffon's needle problem)

$$\frac{2l}{\pi a} ?$$

$$\frac{l}{2a} ?$$

$$\frac{\pi l}{4a} ?$$

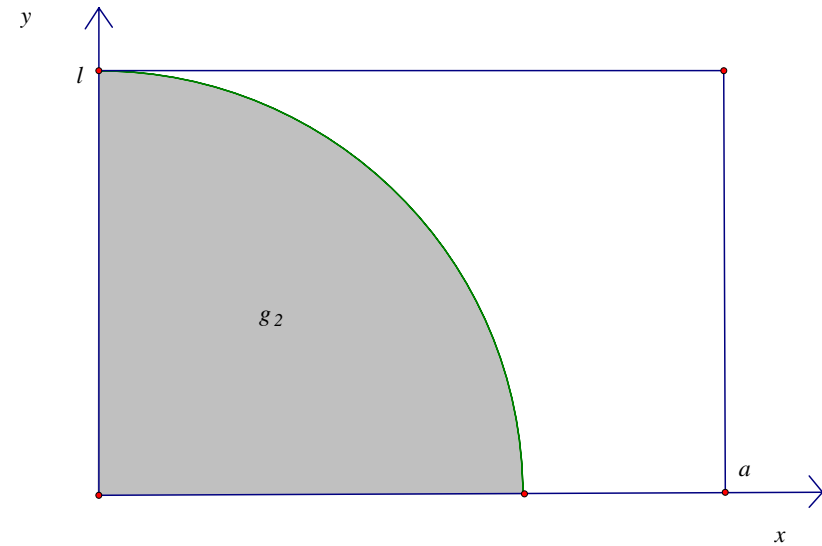
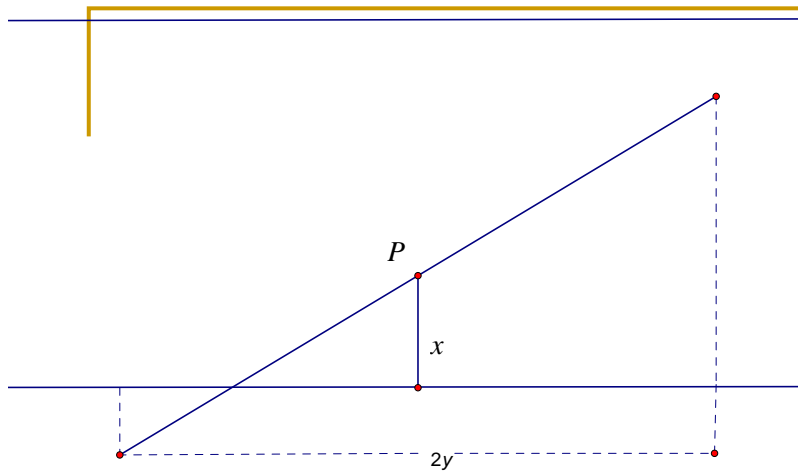




$$= \frac{\int_0^{\pi} l \sin \theta d\theta}{a\pi}$$

$$= \frac{2l}{\pi a}$$





The area of the shaded region  $g_2$

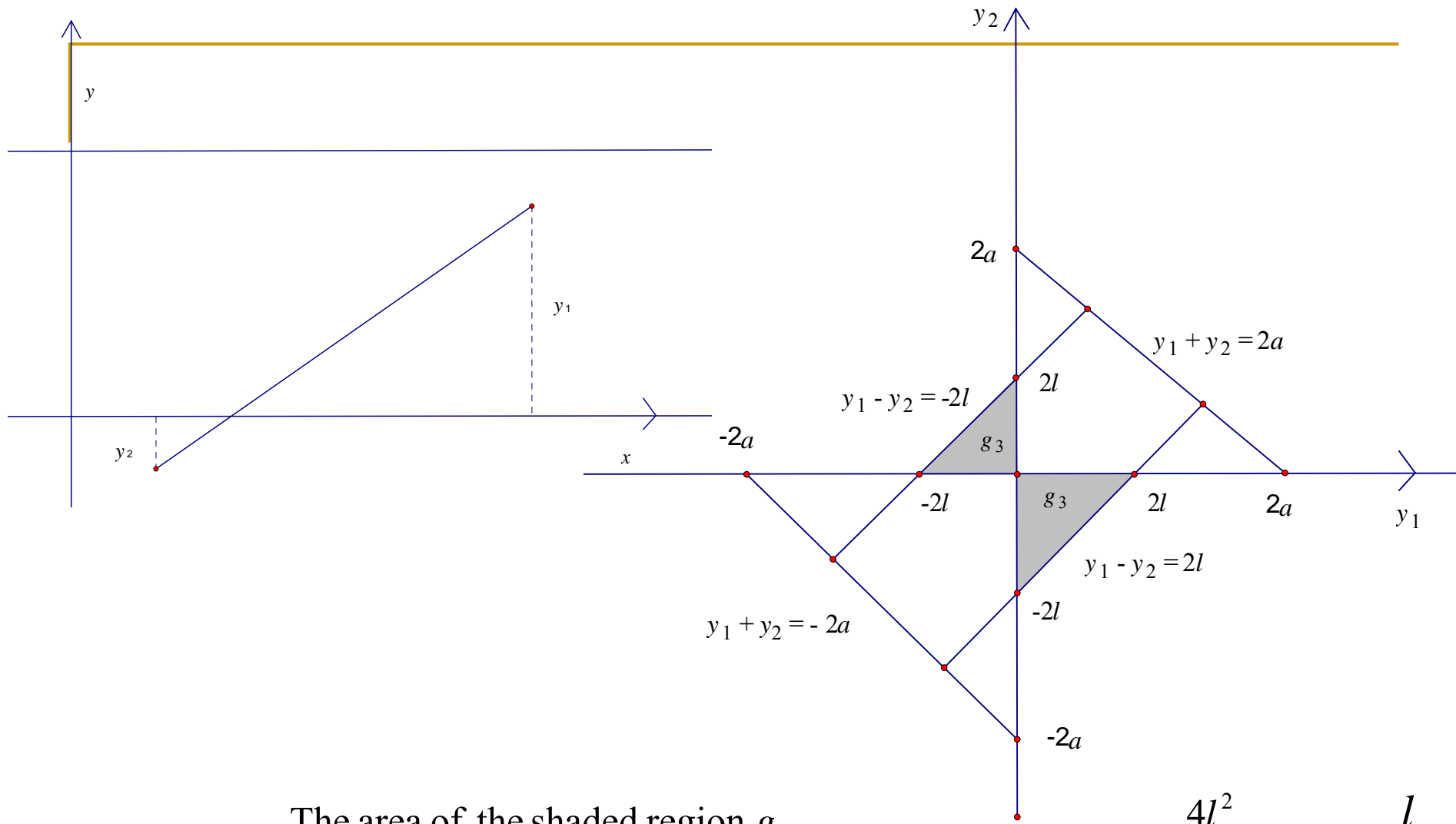
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The area of the rectangle bounded by  $0 \leq x \leq a$  and  $0 \leq y \leq l$

$$= \frac{\frac{1}{4} \pi l^2}{la}$$

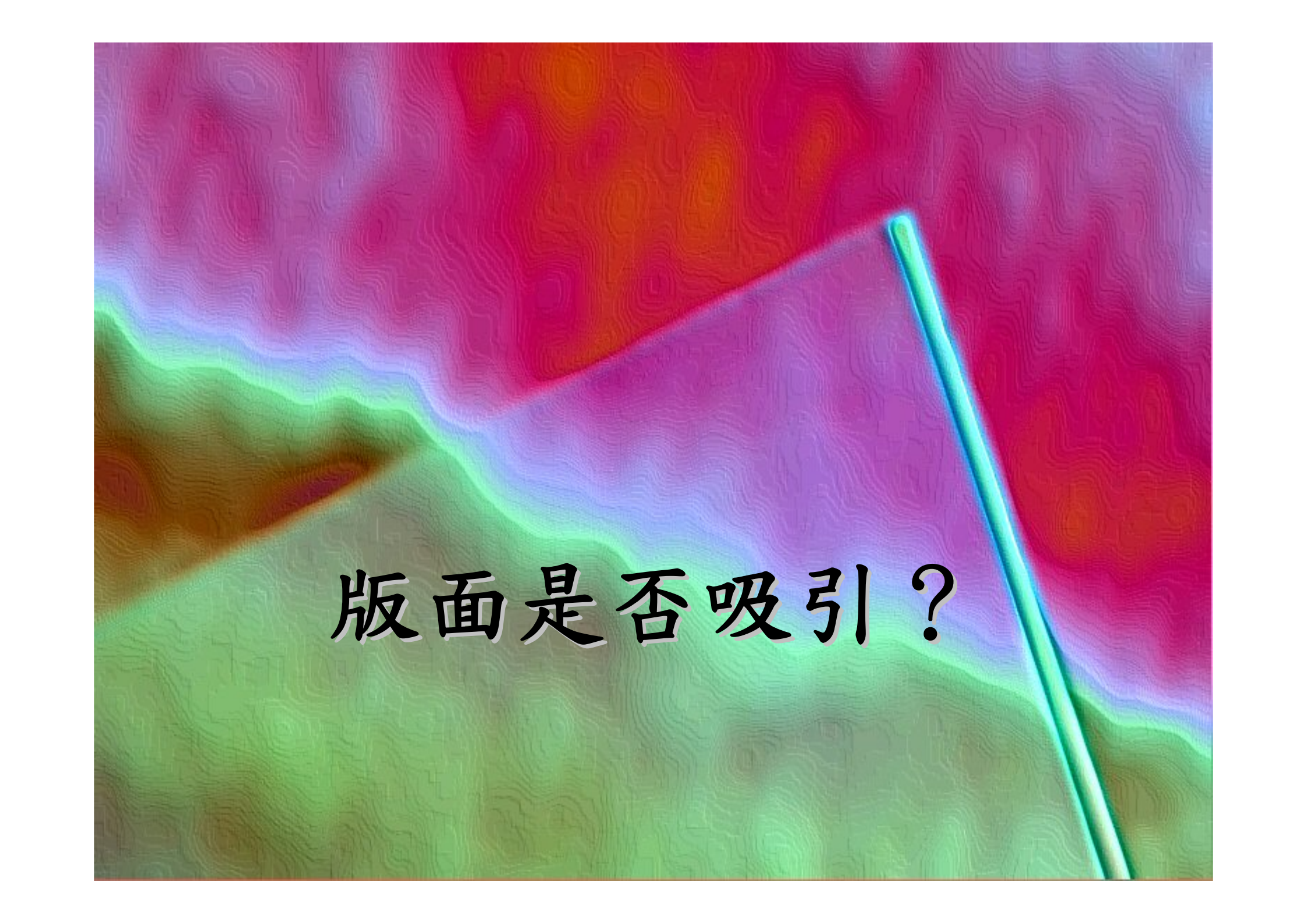
$$= \frac{\pi l}{4a}$$


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The area of the shaded region  $g_3$

$$\frac{\text{The area of the shaded region } g_3}{\text{The area of the rectangle bounded by } |y_1 - y_2| = 2l \text{ and } |y_1 + y_2| = 2a} = \frac{4l^2}{2\sqrt{2a} \times 2\sqrt{2l}} = \frac{l}{2a}$$

The background is a vibrant, abstract composition. It features a diagonal rainbow gradient from the top-left to the bottom-right, with colors transitioning from purple and blue at the top to green and yellow at the bottom. A prominent, glowing blue line with a white outline runs diagonally from the upper right towards the lower right, intersecting the rainbow gradient. The overall texture is slightly grainy and ethereal.

版面是否吸引？

歐氏幾何

The thirteen books of  
The Elements

Thomas L .Heath  
Dover

Dana Densmore  
(Ed.) 2002

Green Lion  
Press

The bones: A handy,  
where-to-find-it pocket  
reference companion to  
Euclid's Elements

13 卷視圖全本幾何原本

燕曉東編譯 2005 年

人民日報出版社

# 經驗分享