### 1982 FI2.4

一個袋有 15 個球,其中 3 個是紅色。從中抽取一個,問抽到紅球的概率為何? There are 15 balls in a bag, of which 3 are red.

What is the probability of drawing a red ball?

### 1984 FI3.3

一袋內有紅球 10 個,白球 10 個。若隨意於袋內取球一個,而該球為白色之機會為x,求x 的值。

One ball is taken at random from a bag containing 10 red balls and 10 white balls. If x is the probability that the ball is white, find the value of x.

## 1985 FSI.3

一袋內有 50 個白球,100 個紅球。若隨意於袋內取一球,而該球為白色之概率為  $\frac{c}{6}$  ,求 c 的值。

One ball is taken at random from a bag containing 50 white balls and 100 red balls.

If  $\frac{c}{6}$  is the probability that the ball is white, find the value of c.

## 1986 FI5.1

投擲一骰子,若擲出質數之或然率為 $\frac{a}{72}$ ,求a的值。

A die is rolled. If the probability of getting a prime number is  $\frac{a}{72}$ ,

find the value of a.

## 1994 FG6.3

若任意選擇一個有三十一日的月份,求該月有五個星期天的機率c。

If a 31-day month is taken at random, find c, the probability that there are 5 Sundays in the month.

## 1999 FG4.4

一個袋子裏有d個球,其中x個是黑球,x+1個是紅球,x+2 個是白球。

若從袋裏隨機抽出一個黑球之概率小於  $\frac{1}{6}$  , 求 d 之值。

A bag contains d balls of which x are black, x + 1 are red and x + 2 are white.

If the probability of drawing a black ball randomly from the bag is less than  $\frac{1}{6}$ ,

find the value of d.

#### 2010 FGS.3

若 P 是等邊三角形 ABC 內部的隨意一點,求 $\Delta ABP$  的面積同時大於 $\Delta ACP$  及 $\Delta BCP$  的面積的概率。

If P is an arbitrary point in the interior of the equilateral triangle ABC, find the probability that the area of  $\triangle ABP$  is greater than **each** of the areas of  $\triangle ACP$  and  $\triangle BCP$ .

## 2019 FG1.2

A box contains only x-one-dollar coins, x + 2 two-dollar coins and x + 4 five-dollar coins. Given that the probability of drawing a one-dollar coin randomly from the box is less than 0.1.

If the box contains b coins, determine the value of b.

# Answers

$ \begin{array}{c} 1982 \text{ Final I2.4} \\ \frac{1}{5} \end{array} $	1984 FI3.3 $\frac{1}{2}$	1985 FSI.3 2	1986 FI5.1 36	1994 FG6.3 3 7
1999 FG4.4 3	2010 FGS.3 $\frac{1}{3}$	2019 FG1.2 6		