1989 HG3

已知對所有正整數 n，$1^2 + 2^2 + \cdots + n^2 = \dfrac{n(n+1)(2n+1)}{6}$ ，

求 $21^2 + 22^2 + \cdots + 30^2$ 的值。

It is known that $1^2 + 2^2 + \cdots + n^2 = \dfrac{n(n+1)(2n+1)}{6}$ for all positive integers n .

Find the value of $21^2 + 22^2 + \cdots + 30^2$.

1991 HI16

已知

$$2^3 - 1^3 = 3 \times 1^2 + 3 \times 1 + 1$$
$$3^3 - 2^3 = 3 \times 2^2 + 3 \times 2 + 1$$
$$4^3 - 3^3 = 3 \times 3^2 + 3 \times 3 + 1$$
$$\vdots \qquad \vdots$$
$$101^3 - 100^3 = 3 \times 100^2 + 3 \times 100 + 1$$

求 $1^2 + 2^2 + 3^2 + \cdots + 100^2$ 的值。

It is known that

$$2^3 - 1^3 = 3 \times 1^2 + 3 \times 1 + 1$$
$$3^3 - 2^3 = 3 \times 2^2 + 3 \times 2 + 1$$
$$4^3 - 3^3 = 3 \times 3^2 + 3 \times 3 + 1$$
$$\vdots \qquad \vdots$$
$$101^3 - 100^3 = 3 \times 100^2 + 3 \times 100 + 1$$

Find the value of $1^2 + 2^2 + 3^2 + \cdots + 100^2$.

1993 HI6

已知對任何正整數 n，$1^2 + 2^2 + \cdots + n^2 = \dfrac{n(n+1)(2n+1)}{6}$ 。

求 $12^2 + 14^2 + 16^2 + \cdots + 40^2$ 的值。

For any positive integer n , it is known that $1^2 + 2^2 + \cdots + n^2 = \dfrac{n(n+1)(2n+1)}{6}$.

Find the value of $12^2 + 14^2 + 16^2 + \cdots + 40^2$.

1995 HG6

已知 $1^2 + 2^2 + 3^2 + \cdots + n^2 = \dfrac{n}{6}(n+1)(2n+1)$ ，

求 $19 \times 21 + 18 \times 22 + 17 \times 23 + \cdots + 1 \times 39$ 的值。

Given that $1^2 + 2^2 + 3^2 + \cdots + n^2 = \dfrac{n}{6}(n+1)(2n+1)$ ，

find the value of $19 \times 21 + 18 \times 22 + 17 \times 23 + \ldots + 1 \times 39$.

Answers

1989 HG3	1991 HI16	1993 HI6	1995 HG6	
6585	338350	11260	5130	