数学冲刺

GMAT

第五章
常见数列及特殊情况处理

本节课授课要点

5.1
常见数列及特殊情况处理

5.1 常见数列及特殊情况处理

递归数列

The sequence $a_1, a_2, a_3, \ldots a_n, \ldots$ is such that $a_n = \frac{a_{n-1} + a_{n-2}}{2}$ for all $n \geq 3$,if $a_3 = 4$ and $a_5 = 20$,what is the value of a_6 ?

A. 12

B. 16

C. 20

D. 24

E. 28

5.1 常见数列及特殊情况处理

Arithmetic sequence 等差数列

Common difference: 公差

$a_n=a_1+(n-1)d$ 通项公式

$s_n=(a_1+a_n)n/2$ 求和公式

$n=(a_n-a_1)/d+1$

5.1 常见数列及特殊情况处理

What is the difference between the sum of all positive even integers less than 102 and the sum of all positive odd integers less than 102 ?

A. 0

B. 1

C. 50

D. 51

E. 101

5.1 常见数列及特殊情况处理

Geometric sequence 等比数列

Common ratio: 公比

$$a_n = a_1 q^{n-1}$$

$$S_n = a_1 \cdot \frac{1-q^n}{1-q} \quad (q \neq 0 \text{ 且 } q \neq 1)$$

5.1 常见数列及特殊情况处理

For every integer k from 1 to 10,indusive ,the kth term of a certain sequence is given by $(-1)^{k+1}(\frac{1}{2^k})$ .If T is the sum of the first 10 terms in the sequence ,then T is

A. greater than 2

B. between 1 and 2

C. between $\frac{1}{2}$ and 1

D. between $\frac{1}{4}$ and $\frac{1}{2}$

E. less than $\frac{1}{4}$

5.1 常见数列及特殊情况处理

特殊情况处理

If the sequence $x_1, x_2, x_3, \ldots, x_n, \ldots$ is such that $x_1 = 3$ and $x_{n+1} = 2x_n - 1$ for $n \geq 1$, then $x_{20} - x_{19} =$

A. 2^{19}

B. 2^{20}

C. 2^{21}

D. $2^{20}-1$,

E. $2^{21}-1$

回顾本节课授课要点

5.1
常见数列及特殊情况处理

预告下节课授课要点

6.1
排列组合
核心公式与重要思想

6.2
概率公式及排列组合
在概率中的应用

THANK YOU