

## Sequence and Series - Class XI

### Related Questions with Solutions

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#### Questions

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##### Question: 01

In a geometric progression consisting of positive terms, each term equals the sum of the next two terms. Then the common ratio of this progression is equal to

- A.  $\sqrt{5}$
- B.  $\frac{1}{2}(\sqrt{5} - 1)$
- C.  $\frac{1}{2}(1 - \sqrt{5})$
- D.  $\frac{1}{2}\sqrt{5}$

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#### Solutions

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##### Solution: 01

Given,  $a = ar + ar^2 \Rightarrow r^2 + r - 1 = 0$

$$\Rightarrow r = \frac{-1 \pm \sqrt{5}}{2} \Rightarrow r = \frac{\sqrt{5} - 1}{2} \text{ [G.P. contains positive terms]}$$

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#### Correct Options

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Answer:01

Correct Options: B