

## Binomial Theorem - Class XI

### Related Questions with Solutions

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#### Questions

##### Question: 01

The index  $n$  of the binomial  $\left(\frac{1}{5} + \frac{2}{5}\right)^n$  if the 9<sup>th</sup> term of the expansion has numerically greatest coefficient ( $n \in \mathbb{N}$ ) is

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#### Solutions

##### Solution: 01

$$8 < \binom{n+1}{1 + \frac{1}{2}} < 9$$

$$8 < \frac{2n+2}{3} < 9$$

$$11 < n < \frac{25}{2}$$

$$n = 12$$

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#### Correct Options

Answer:01

Correct Answer: 12