Binomial Theorem - Class XI

Related Questions with Solutions

Questions

Quetion: 01

The 14^{th} term from the end in the expansion of $(\sqrt{x}-\sqrt{y})^{17}$ is

A. ${}^{17}C_5 x_6(-\sqrt{y})^5$

B. ${}^{17i}C_6(\sqrt{x})^{11}y^3$

C. ${}^{17}C_4 x^{13/2}y^2$

D. None of these

Solutions

Solution: 01

14^{th} term from end = {[17 + 1] – 14} + 1 = [18 – 14] + 1 = 5

$\therefore$ 14^{th} term from end = 5^{th} term from beginning

$\Rightarrow \quad t_5 = {}^{17}C_4(\sqrt{x})^{13}(-\sqrt{y})^4$

$\Rightarrow \quad t_5 = {}^{17}C_4x^{13/2}y^2$

Correct Options

Answer:01

Correct Options: C