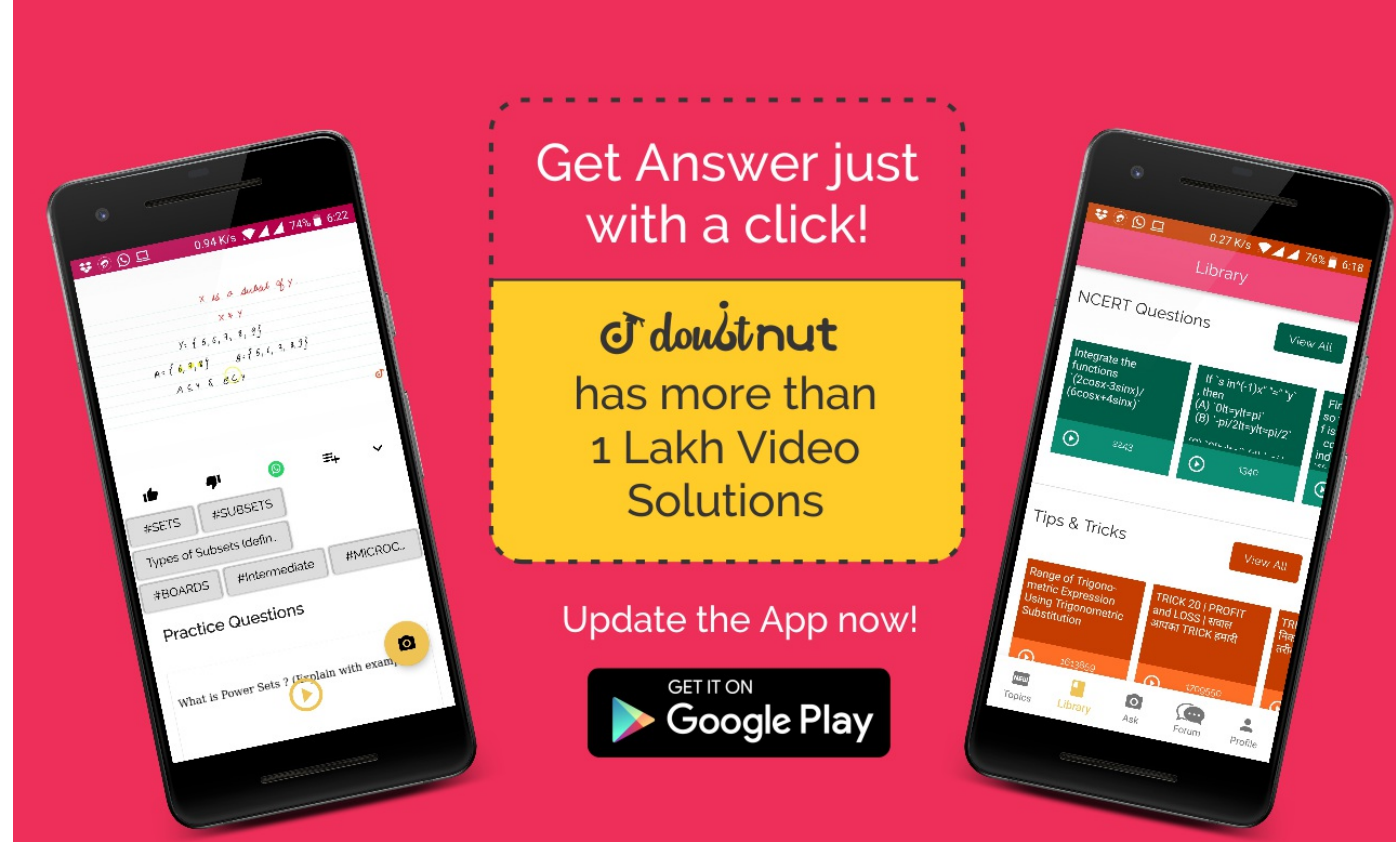| Ques No.	Question
1	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 1** Expand of the expression : $(1 - 2x)^5$ ▶ Watch Free Video Solution on Doubtnut
2	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 2** Expand of the expression : $\left(\dfrac{2}{5} - \dfrac{x}{2}\right)^5$ ▶ Watch Free Video Solution on Doubtnut
3	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 3** Expand of the expression : $(2x - 3)^6$ ▶ Watch Free Video Solution on Doubtnut
4	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 4** Expand of the expression : $\left(\dfrac{x}{3} + \dfrac{1}{x}\right)^5$ ▶ Watch Free Video Solution on Doubtnut
5	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 5** Expand of the expression : $\left(x + \dfrac{1}{x}\right)^6$ ▶ Watch Free Video Solution on Doubtnut

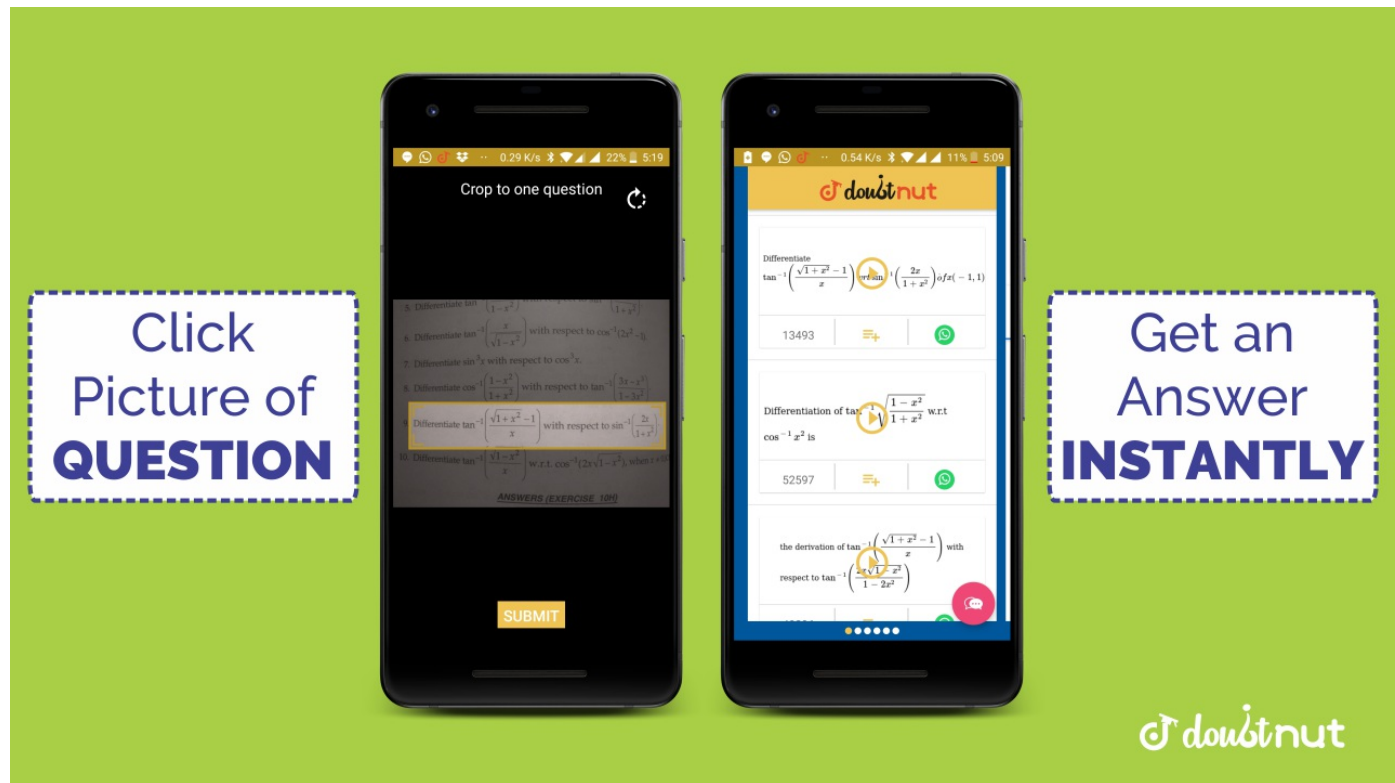|	
6	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 6** Using binomial theorem, evaluate : $(96)^3$ ▶ Watch Free Video Solution on Doubtnut
7	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 7** Using binomial theorem, evaluate : $(102)^5$ ▶ Watch Free Video Solution on Doubtnut
8	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 8** Using binomial theorem, evaluate : $(101)^4$ ▶ Watch Free Video Solution on Doubtnut
9	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 9** Using binomial theorem, evaluate : $(99)^5$ ▶ Watch Free Video Solution on Doubtnut
10	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 10** Using binomial theorem, indicate which number is larger $(1.1)^{10000}$ or 1000. ▶ Watch Free Video Solution on Doubtnut
	NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 11 Find $(a + b)^4 - (a - b)^4$. Hence, evaluate

11	$$(\sqrt{3} + \sqrt{2})^4$$ $$- (\sqrt{3} - \sqrt{2})^4$$. ▶ Watch Free Video Solution on Doubtnut

NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 12

Find $(x + 1)^6 + (x - 1)^6$. Hence or otherwise evaluate
$$(\sqrt{2} + 1)^6$$
$$+ (\sqrt{2} - 1)^6$$

.

▶ Watch Free Video Solution on Doubtnut

NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 13

Show that $9^{n+1} - 8n - 9$ is divisible by 64, whenever n is a positive integer.

▶ Watch Free Video Solution on Doubtnut

NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.1 - Q 14

14	Prove that $\sum_{r=0}^{n} 3^r\, {}^nC_r = 4^n$. ▶ Watch Free Video Solution on Doubtnut
15	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.2 - Q 1** Find the coefficient of x^5 in $(x+3)^8$ ▶ Watch Free Video Solution on Doubtnut
16	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.2 - Q 2** Find the coefficient of $a^5 b^7 \in (a-2b)^{12}$ ▶ Watch Free Video Solution on Doubtnut
17	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.2 - Q 3** Write the general term in the expansion of $\left(x^2 - y\right)^6$ ▶ Watch Free Video Solution on Doubtnut
doubtnut पढ़ना हुआ आसान	
18	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.2 - Q 4** Write the general term in the expansion of $\left(x^2 - yx\right)^{12}, x \neq 0$ ▶ Watch Free Video Solution on Doubtnut
19	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.2 - Q 5** Find the 4th term in the expansion of $(x - 2y)^{12}$. ▶ Watch Free Video Solution on Doubtnut

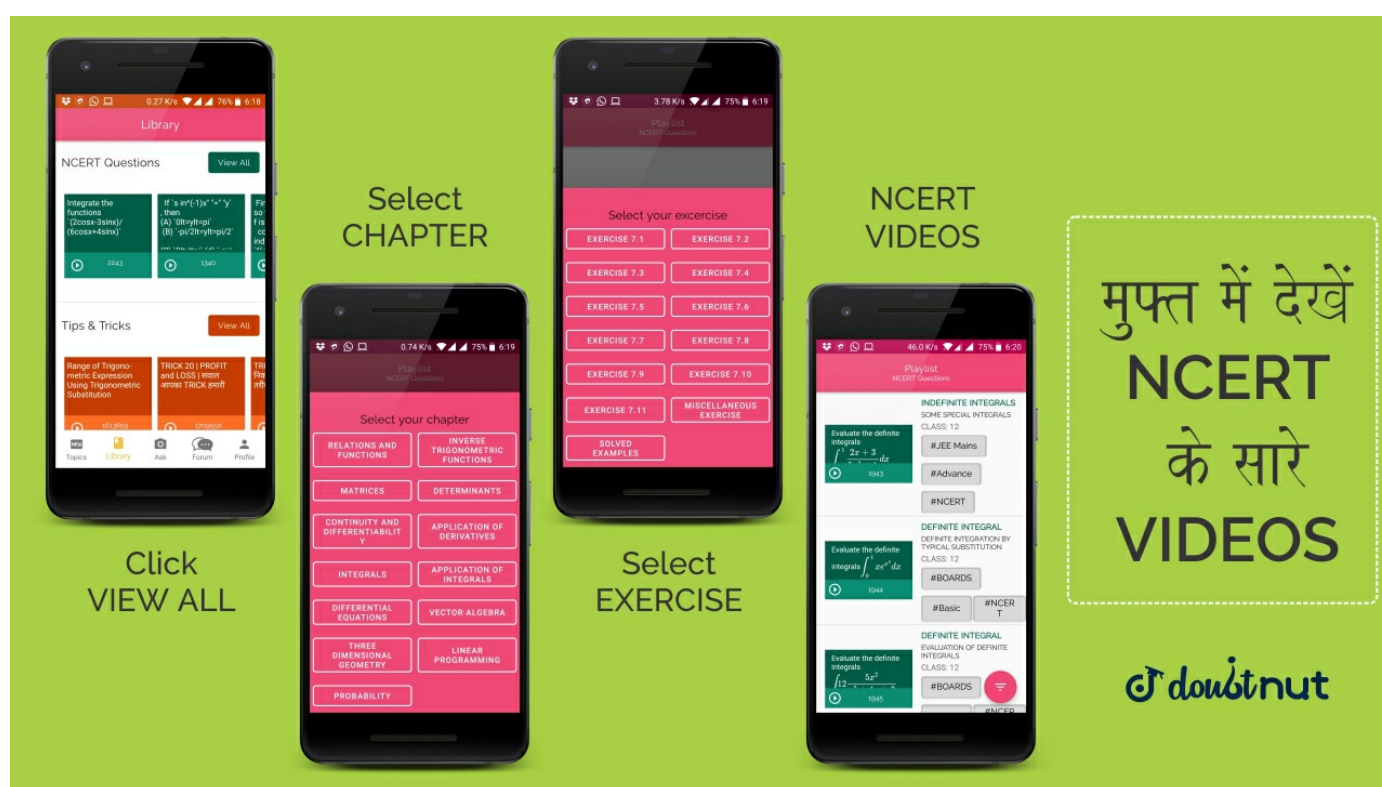| 20	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - EXERCISE 8.2 - Q 6** Find the 13th term in the expansion of $$\left(9x - \frac{1}{3\sqrt{x}}\right)^{18}, x \neq 0$$ ▶ **Watch Free Video Solution on Doubtnut**
21	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - MISCELLANEOUS EXERCISE - Q 1** Find a, b and n in the expansion of $(a + b)^n$ if the first three terms of the expansion are 729, 7290 and 30375, respectively. ▶ **Watch Free Video Solution on Doubtnut**
22	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - MISCELLANEOUS EXERCISE - Q 2** Find a if the coefficients of x^2 and x^3 in the expansion of $(3 + ax)^9$ are equal. ▶ **Watch Free Video Solution on Doubtnut**
23	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - MISCELLANEOUS EXERCISE - Q 3** Find the coefficient of x^5 in the product $(1 + 2x)^6(1 - x)^7$ using binomial theorem. ▶ **Watch Free Video Solution on Doubtnut**

24	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - MISCELLANEOUS EXERCISE - Q 4** If and b are distinct integers, prove that $a \quad - \quad b$ is a factor of $a^n - b^n$, whenever n is a positive integer. ► Watch Free Video Solution on Doubtnut
25	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - MISCELLANEOUS EXERCISE - Q 5** Evaluate $\left(\sqrt{3} + \sqrt{2}\right)^6$ $- \left(\sqrt{3} - \sqrt{2}\right)^6$. ► Watch Free Video Solution on Doubtnut
26	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - MISCELLANEOUS EXERCISE - Q 6** Find the value of $\left(a^2 + \sqrt{a^2 - 1}\right)^4$ $+ \left(a^2 - \sqrt{a^2 - 1}\right)^4$. ► Watch Free Video Solution on Doubtnut
27	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - MISCELLANEOUS EXERCISE - Q 7** Find an approximation of $(0.99)^5$ using the first three terms of its expansion. ► Watch Free Video Solution on Doubtnut
28	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - MISCELLANEOUS EXERCISE - Q 8** Find n, if the ratio of the fifth term from the beginning to the fifth term from the end in the expansion of $\left(\sqrt[4]{2} + \dfrac{1}{\sqrt[4]{3}}\right)^n$ is $\sqrt{6} : 1$ ► Watch Free Video Solution on Doubtnut
29	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - MISCELLANEOUS EXERCISE - Q 9** Expand using Binomial Theorem

$$\left(1 + \frac{x}{2} - \frac{2}{x}\right)^4, x \neq 0.$$

NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - MISCELLANEOUS EXERCISE - Q 10

30

Find the expansion of $\left(3x^2 - 2ax + 3a^2\right)^3$ using binomial theorem.

NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 1

31

Expand $\left(x^2 + \frac{3}{x}\right)^4, x \neq 0$

NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 2

32

Compute $(98)^5$.

NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 3

33

Which is larger $(1.01)^{10000000}$ or 10,000?

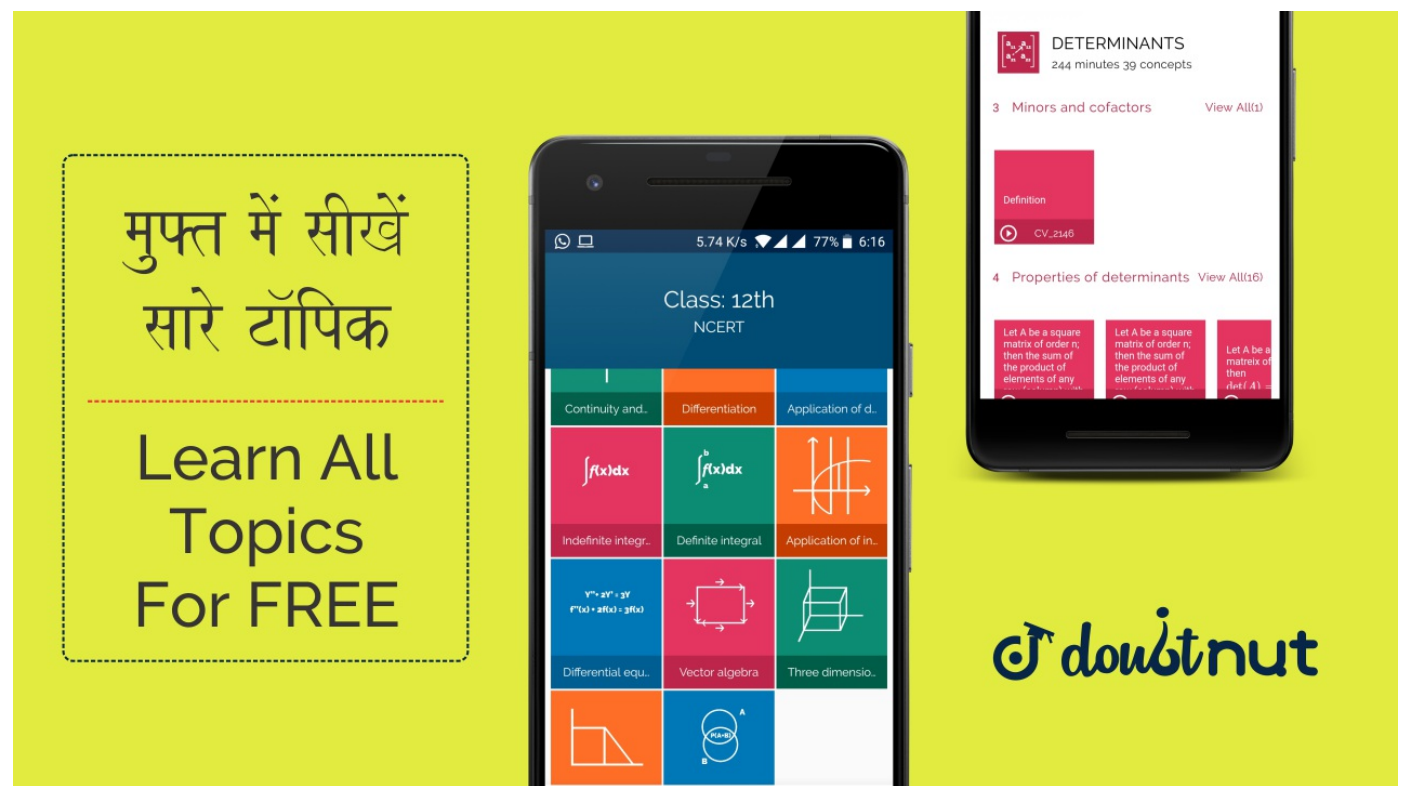|	
34	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 4** Using binomial theorem, prove that $6^n - 5n$ always leaves remainder 1 when divided by 25. ▶ Watch Free Video Solution on Doubtnut
35	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 5** Find a if the 17th and 18th terms of the expansion $(2 + 1)^{50}$ are equal. ▶ Watch Free Video Solution on Doubtnut
36	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 6** Show that the middle term in the expansion of $(1 + x)^{2n}$ is $\dfrac{1.\ 3.\ 5.\ 2n - 1}{n!}$ $2nx^n 2nx^n$, where n is a positive integer. ▶ Watch Free Video Solution on Doubtnut
37	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 7** Find the coefficient of $x^6 y^3$ in the expansion of $(x + 2y)^9$. ▶ Watch Free Video Solution on Doubtnut
38	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 8** The second, third and fourth terms in the binomial expansion $(x + a)^n$ are 240, 720

and 1080, respectively. Find x, a and n.

39	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 9** The coefficients of three consecutive terms in the expansion of $(1 + a)^n$ are in the ratio 1: 7 : 42. Find n.
40	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 10** Find the term independent of x in the expansion of $\left(\dfrac{3}{2}x^2 - \dfrac{1}{3x} \right)^6$.
41	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 11** If the coefficients of a^{r-1}, a^r and a^{r+1} in the expansion of $(1 + a)^n$ are in arithmetic progression, prove that $n^2 - n(4r + 1)$ $+ 4r^2 - 2 = 0$.

42	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 12** Show that the coefficient of the middle term in the expansion of $(1 + x)^{2n}$ is equal to the sum of the coefficients of two middle terms in the expansion of $(1 + x)^{2n-1}$.

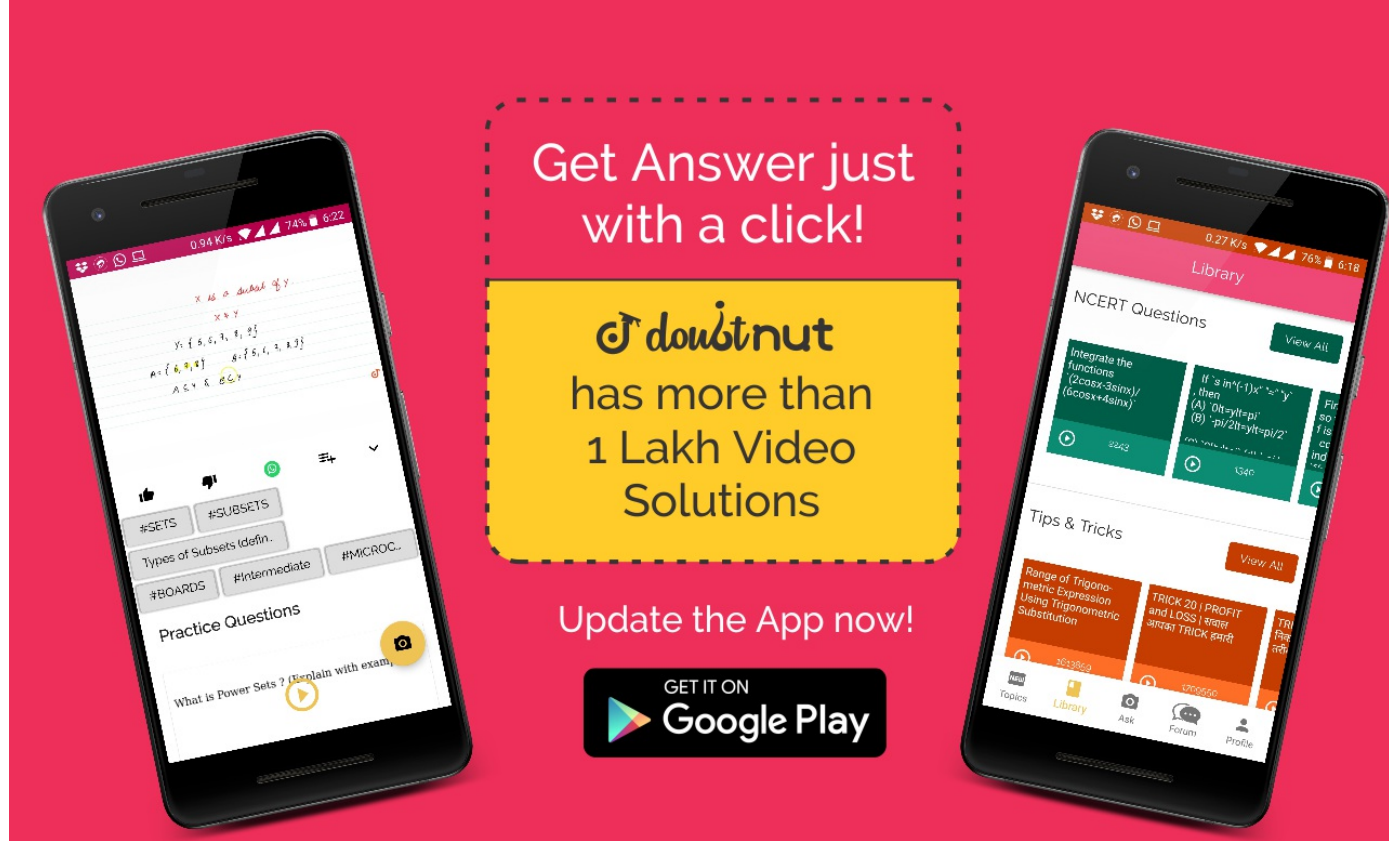| 43	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 13** Find the coefficient of a^4 in the product $(1+2a)^4(2-a)^5$ using binomial theorem. ▶ Watch Free Video Solution on Doubtnut
44	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 14** Find the rth term from the end in the expansion of $(x+a)^n$. ▶ Watch Free Video Solution on Doubtnut
45	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 15** Find the term independent of x in the expansion of $\left(x3 + \dfrac{1}{2x3} \right)$ ▶ Watch Free Video Solution on Doubtnut
46	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 16** The sum of the coefficients of the first three terms in the expansion of $\left(x - \dfrac{3}{x^2} \right)^m , x$ $\neq 0,$ m being a natural number, is 559. Find the term of the expansion containing x^3 . ▶ Watch Free Video Solution on Doubtnut
47	**NCERT - CLASS 11 - CHAPTER 8 BINOMIAL THEOREM - SOLVED EXAMPLES - Q 17** If the coefficients of $(r-5)^{th}$ and $(2r-1)^{th}$ terms of the expansion $(1+x)^{34}$ are equal, find r. ▶ Watch Free Video Solution on Doubtnut
	🚀 Download Doubtnut to Ask Any Math Question By just a click 🚀 Get A Video Solution For Free in Seconds 🚀 Doubtnut Has More Than 1 Lakh Video Solutions 🚀 Free Video Solutions of NCERT, RD Sharma, RS Aggarwal, Cengage

(G.Tewani), Resonance DPP, Allen, Bansal, FIITJEE, Akash, Narayana, VidyaMandir

 Download Doubtnut Today

 Download Doubtnut Today