BOARDS CONCEPTS BOOSTER

ALGEBRAIC EXPRESSIONS AND IDENTITIES

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5	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **2. POLYNOMIALS** 2. Degree of a polynomial in one variable in a polynomial in one variable the highest power of the variable is called its degree . Click to LEARN this concept/topic on Doubtnut
6	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **2. REVIEW OF CONCEPTS AND DEFINITIONS** 2. variable A symbol which takes various numerical values is called a variable. Click to LEARN this concept/topic on Doubtnut
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8	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **2. REVIEW OF CONCEPTS AND DEFINITIONS** 3. Algebraic expressions A combination of constants and variables connected by the signs of fundamental operations of addition subtraction multiplication and division is called an algebraic expression. Click to LEARN this concept/topic on Doubtnut
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10	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **2. REVIEW OF CONCEPTS AND DEFINITIONS** 4. Terms Various parts of an algebraic expression which are separated by the signs of + or - are called the terms of the expression. Click to LEARN this concept/topic on Doubtnut
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12	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **2. REVIEW OF CONCEPTS AND DEFINITIONS** 5. Monomial An algebraic expression containing only one term is called a monomial. Click to LEARN this concept/topic on Doubtnut
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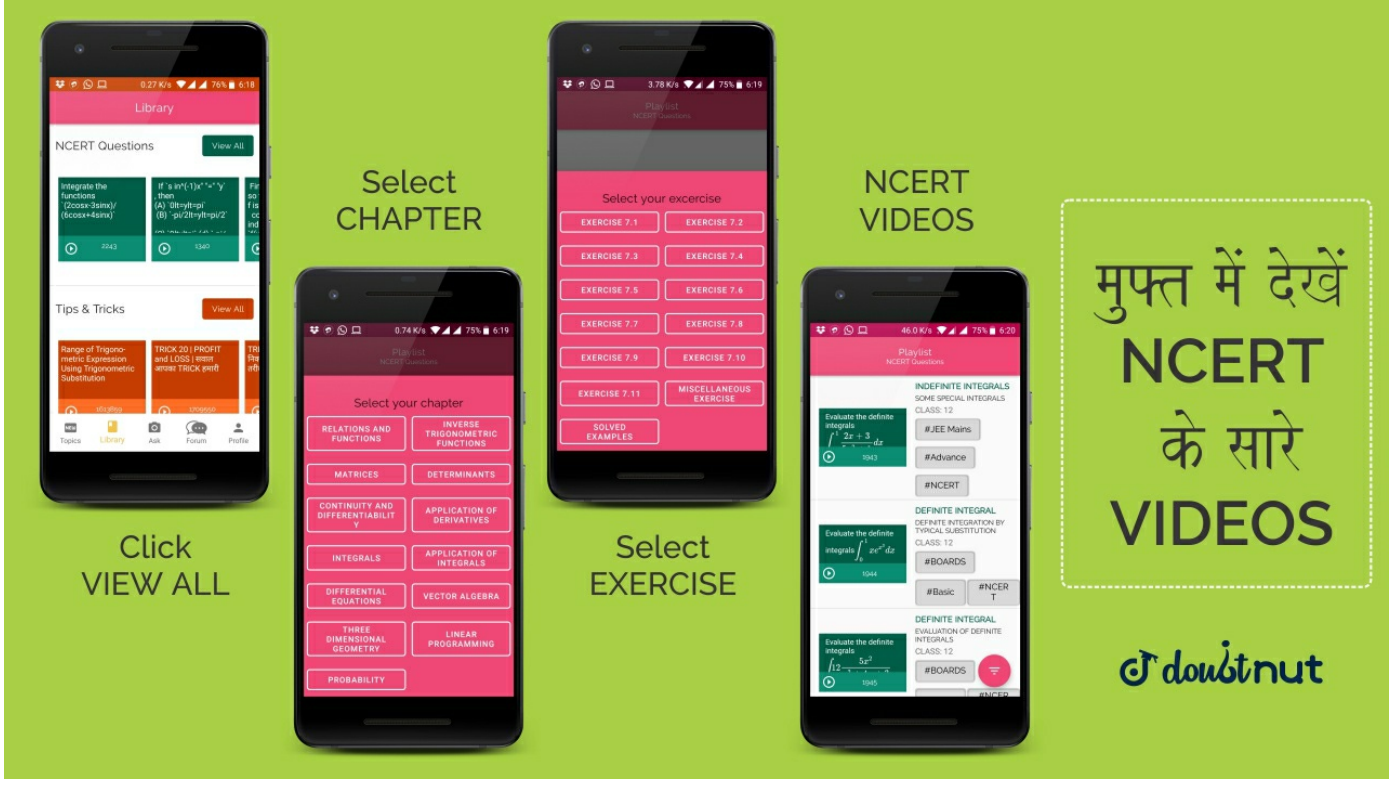

16	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **2. REVIEW OF CONCEPTS AND DEFINITIONS** 7. Trinomial An algebraic expression containing three terms is called a trinomial. Click to LEARN this concept/topic on Doubtnut
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19	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **2. REVIEW OF CONCEPTS AND DEFINITIONS** 9. Coefficient In a term of an algebraic expression any of the factors with the sign of the term is called the coefficient of the product of the other factors. Click to LEARN this concept/topic on Doubtnut

20	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **2. REVIEW OF CONCEPTS AND DEFINITIONS** 10. Constant term A term of the expression having no literal factor is called a constant term. Click to LEARN this concept/topic on Doubtnut
21	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **2. REVIEW OF CONCEPTS AND DEFINITIONS** 11. Like and unlike terms The terms having the same literal factors are called like or similar terms otherwise they are called unlike terms. Click to LEARN this concept/topic on Doubtnut
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26	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **4. ALGEBRAIC EXPRESSIONS WHICH ARE NOT POLYNOMIALS** 1. Algebraic expressions which are not polynomials Click to LEARN this concept/topic on Doubtnut
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27	**4. MULTIPLICATION OF ALGEBRAIC EXPRESSIONS** 2. RULE 1 The coefficient of the products of two monomials is equal to the products of their coefficients. Click to LEARN this concept/topic on Doubtnut
	
28	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **4. MULTIPLICATION OF ALGEBRAIC EXPRESSIONS** 3. RULE 2 The variable part in the products of two monomials is equal to the product of the variable parts in the given monomials. Click to LEARN this concept/topic on Doubtnut
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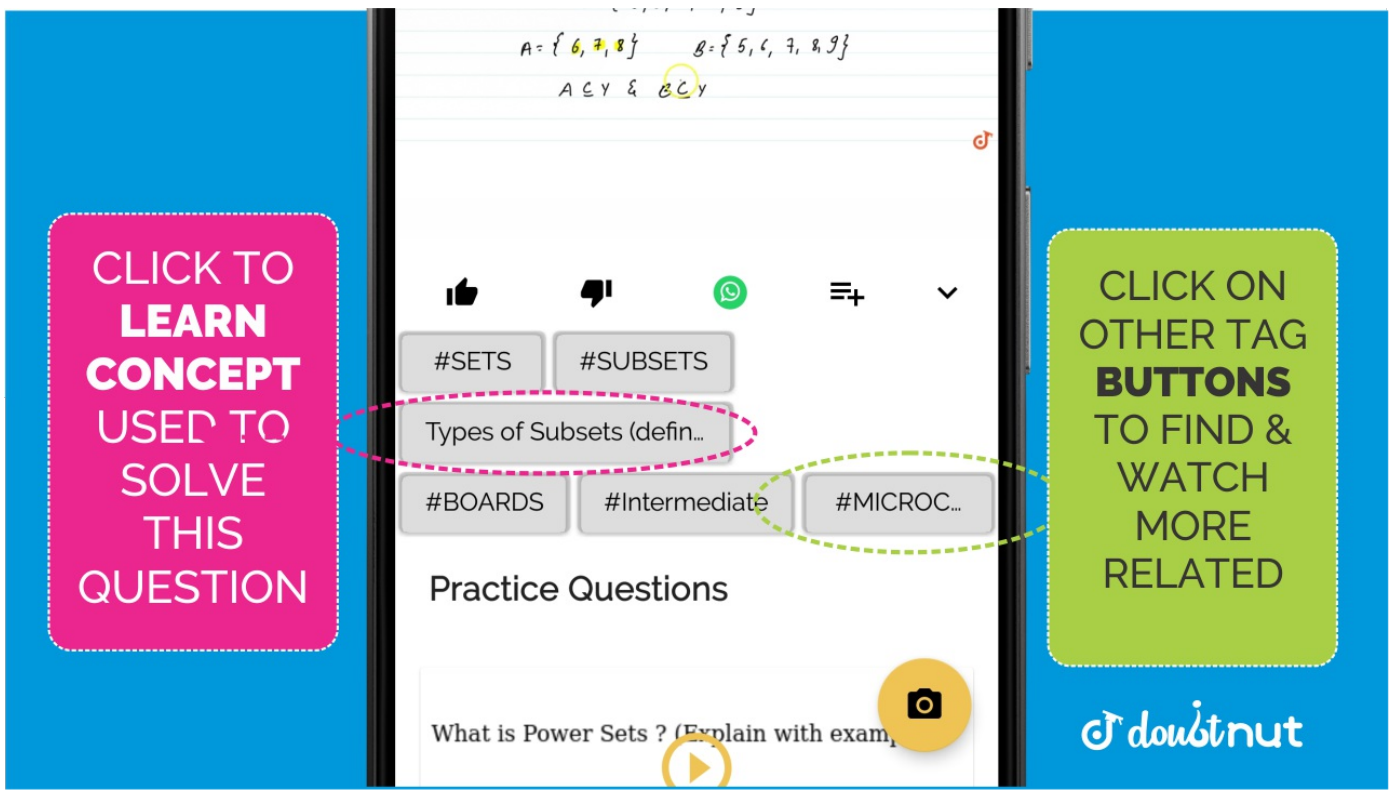
32	 **CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **5. MULTIPLICATION OF TWO BINOMIALS** 2. Multiply : $\left(2x^2 - 3x + 5\right)$ by $(5x + 2)$. Click to LEARN this concept/topic on Doubtnut
33	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **5. DIVISION OF POLYNOMIAL IN ONE VARIABLE** 2. Division of a polynomial by a binomial by using long division Click to LEARN this concept/topic on Doubtnut
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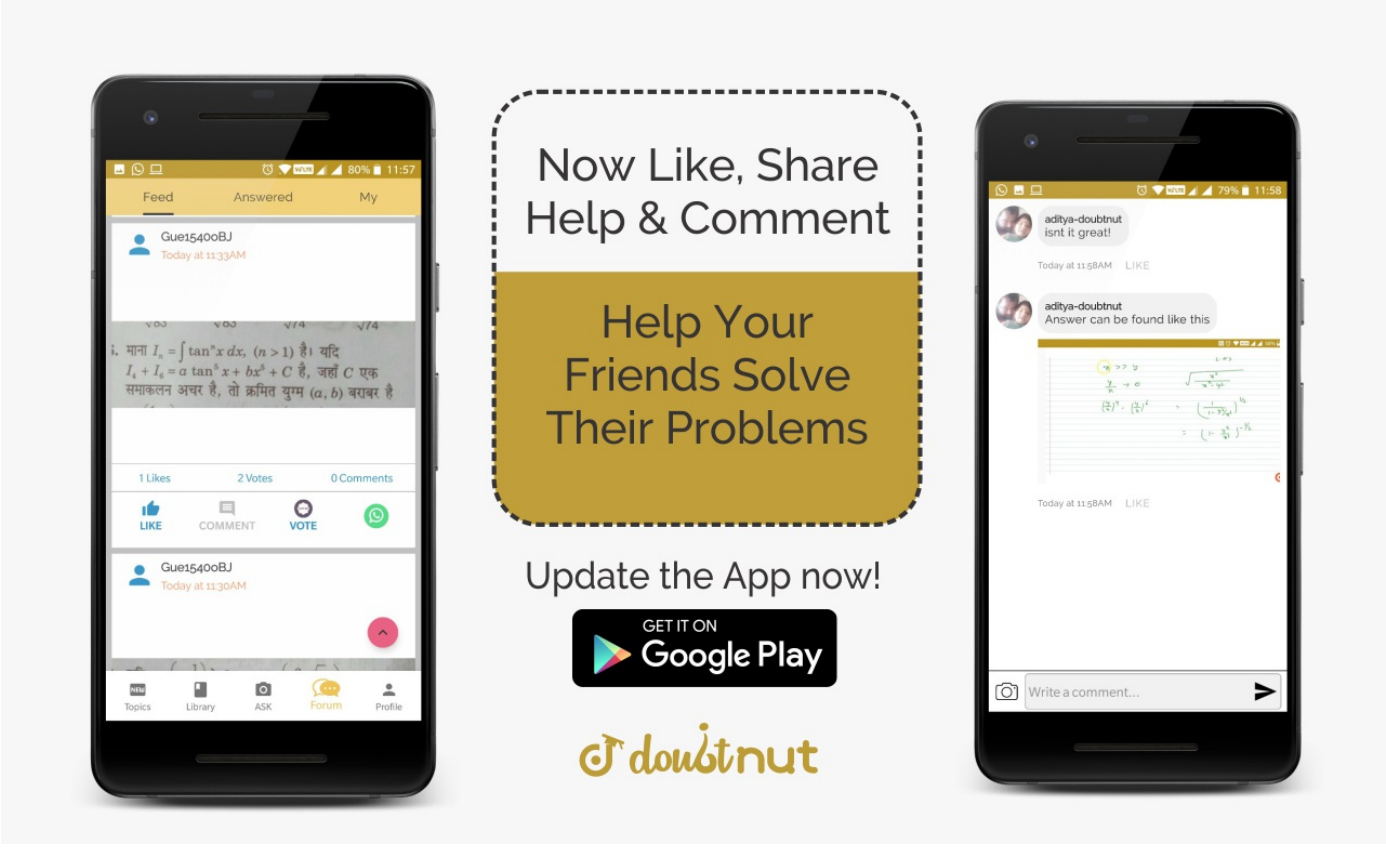
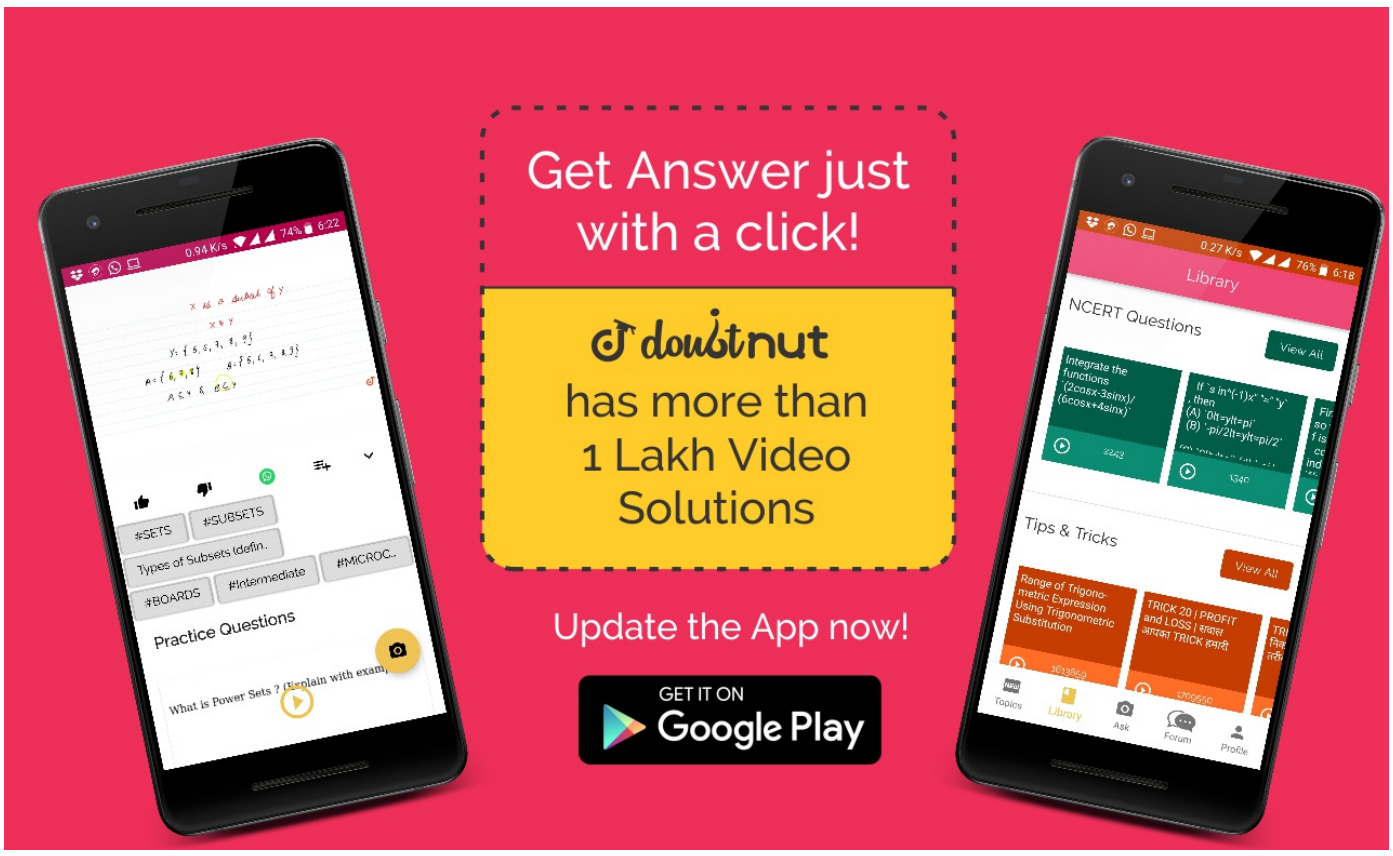
35	**5. DIVISION OF POLYNOMIAL IN ONE VARIABLE** 4. An alternative and shorter form of long division Click to LEARN this concept/topic on Doubtnut
	
36	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **6. IDENTITIES** 1. IDENTITY: An identity is an equality which is true for all values of the variables. Click to LEARN this concept/topic on Doubtnut
37	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **6. DIVISION OF POLYNOMIAL BY USING FACTORIZATION** 1. Division of polynomial by using factorization Click to LEARN this concept/topic on Doubtnut
38	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **6. IDENTITIES** 2. To verify the algebraic identity $[a+b]^2 = a^2 + 2ab + b^2$ Click to LEARN this concept/topic on Doubtnut
	CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES **6. IDENTITIES**

39	3. Prove that: $(a - b)^2 = a^2 - 2ab + b^2$ Click to LEARN this concept/topic on Doubtnut
	
40	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **6. IDENTITIES** 4. Important Identity - $(a - b)(a + b) = a^2 - b^2$ (ii) $(x + a)(x + b) = x^2 + (a + b)x + ab$ Click to LEARN this concept/topic on Doubtnut
41	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **6. IDENTITIES** 5. EVALUATE : (i) $(2x + 3y)^2$ (ii) $(2x - 3y)^2$ (iii) $(2x + 3y)(2x - 3y)$ Click to LEARN this concept/topic on Doubtnut
42	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **6. IDENTITIES** 6. If $x + \frac{1}{x} = 4$; Find (i) $x^2 + \frac{1}{x^2}$ (ii) $x^4 + \frac{1}{x^4}$ Click to LEARN this concept/topic on Doubtnut
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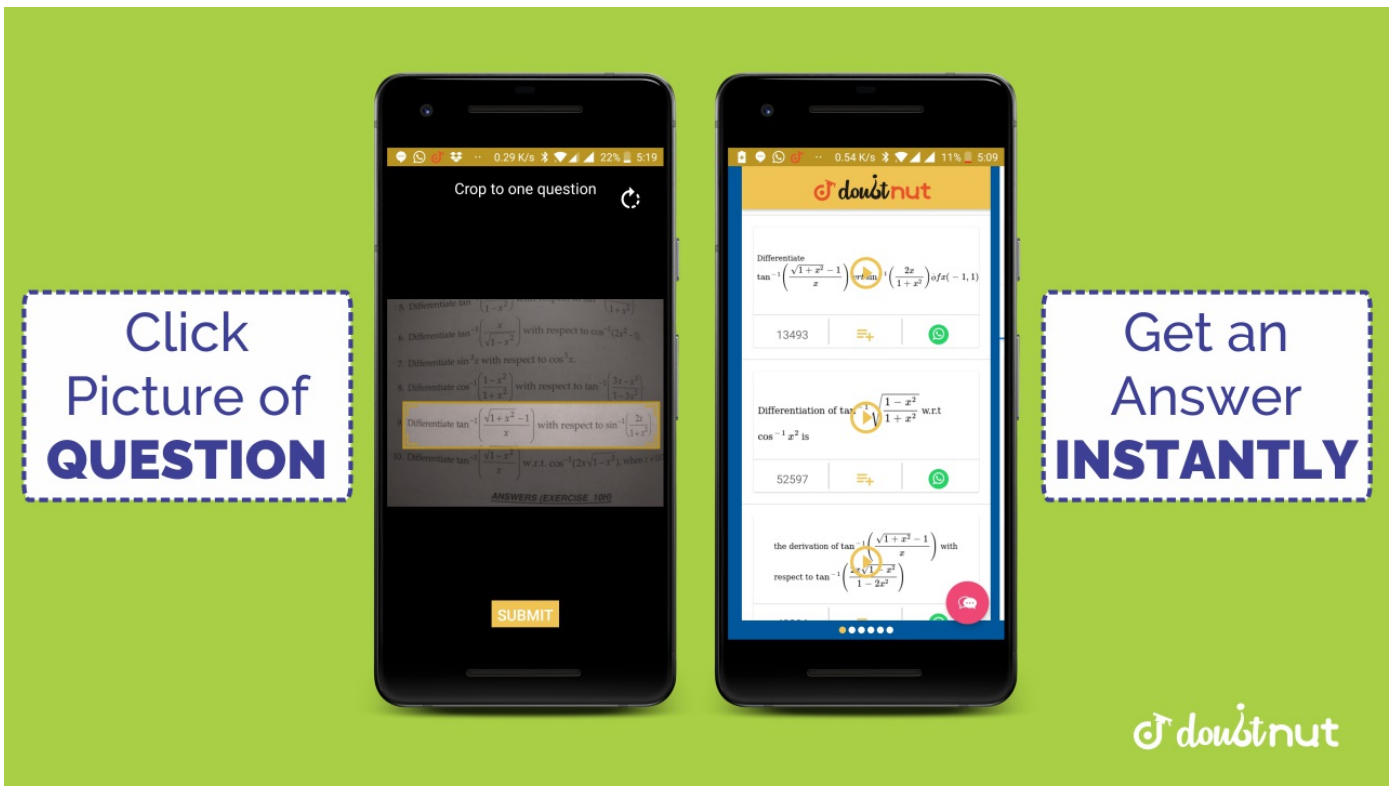
43	**6. IDENTITIES** 7. If $x - \frac{1}{x} = 9$ find $x^2 + \frac{1}{x^2}$. Click to LEARN this concept/topic on Doubtnut
	
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45	**CONCEPT FOR BOARDS || Chapter ALGEBRAIC EXPRESSIONS AND IDENTITIES** **6. IDENTITIES** 9. Using the formula for squaring a binomial evaluate the following (i) $(101)^2$ (ii) $(99)^2$ (iii) $(93)^2$ Click to LEARN this concept/topic on Doubtnut
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47	**7. A SPECIAL PRODUCT** 1. Important Identitiy $(x+a)(x+b)=x^2+(a+b)x+ab$ Click to LEARN this concept/topic on Doubtnut
	
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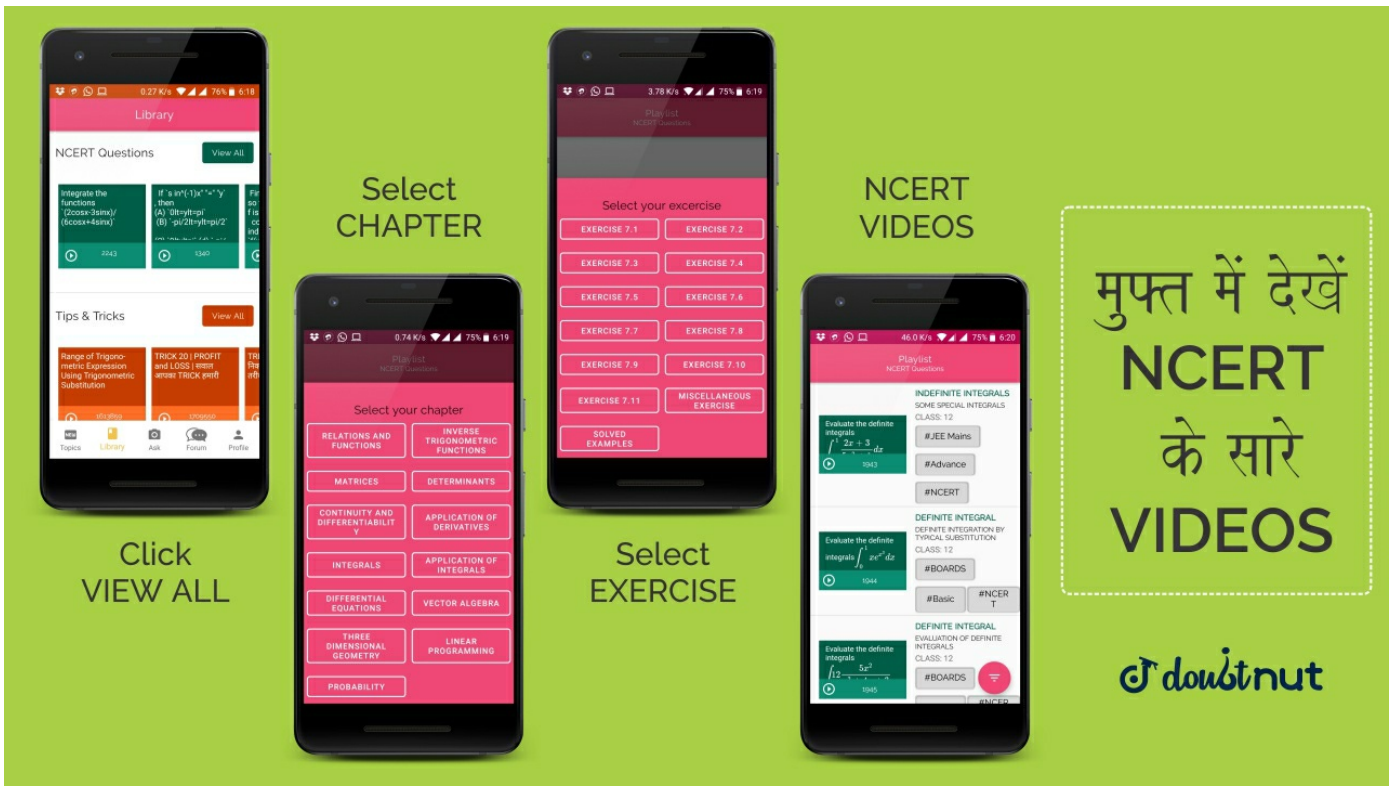

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8. ACTIVITIES FOR VERIFYING THE IDENTITIES

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4. Important Identitiy $(x+a)(x+b)=x^2+(a+b)x+ab$

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