CLASS 10 BOARDS MATHS SOLUTIONS

YEAR 2015

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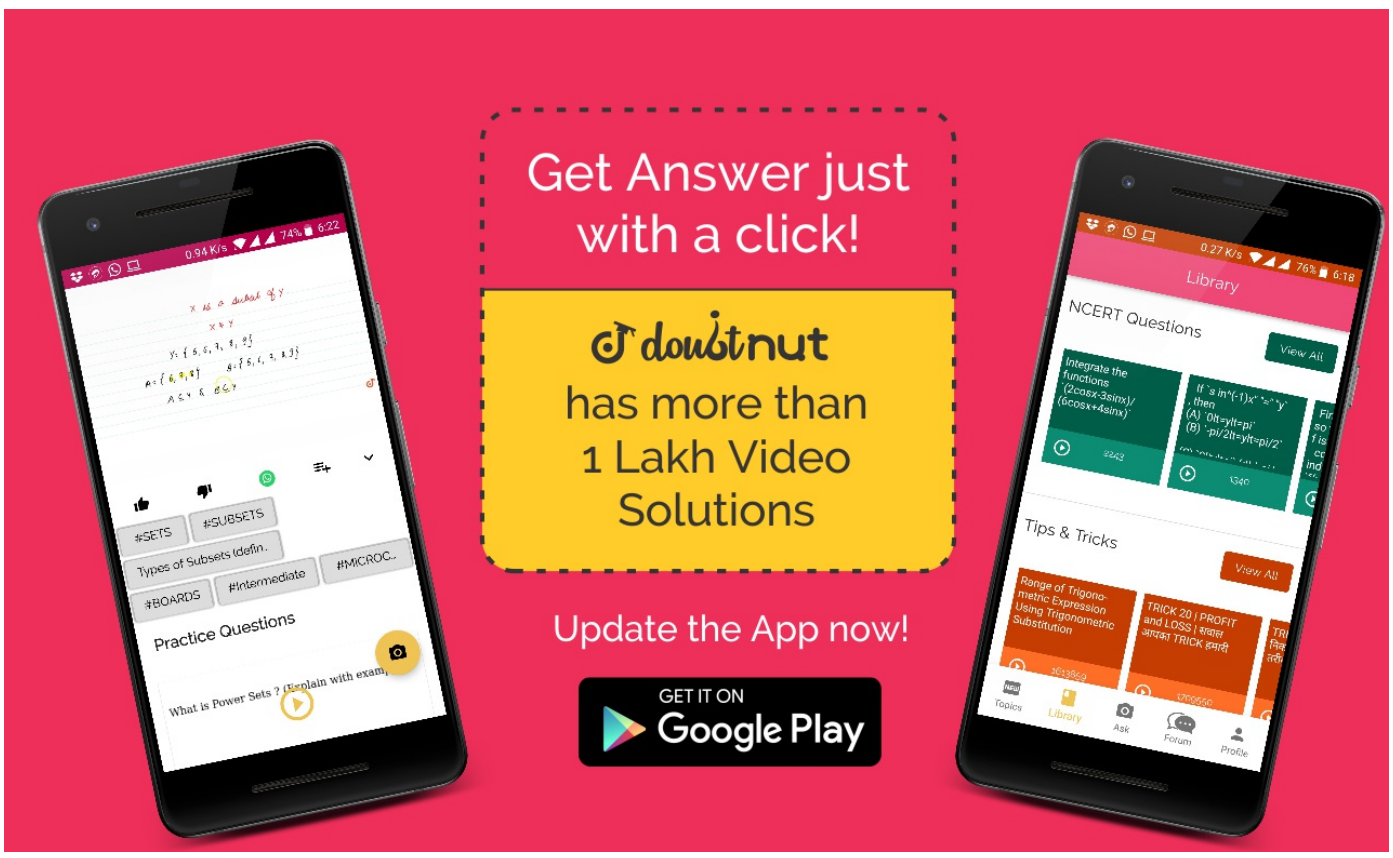
Ques No.	Question
1	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** If the quadratic equation $px^2 - 2\sqrt{5} + 15 = 0$ has two equal roots, then find value of p. Watch Free Video Solution on Doubtnut
2	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** In the following figure, a tower AB is 20 m high and BC, its shadow on the ground, is $20\sqrt{3}$ m long. Find the Sun's altitude. Watch Free Video Solution on Doubtnut
3	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** Two different dice are tossed together, Find the probability that the product of the two numbers on the top of the dice is 6. Watch Free Video Solution on Doubtnut



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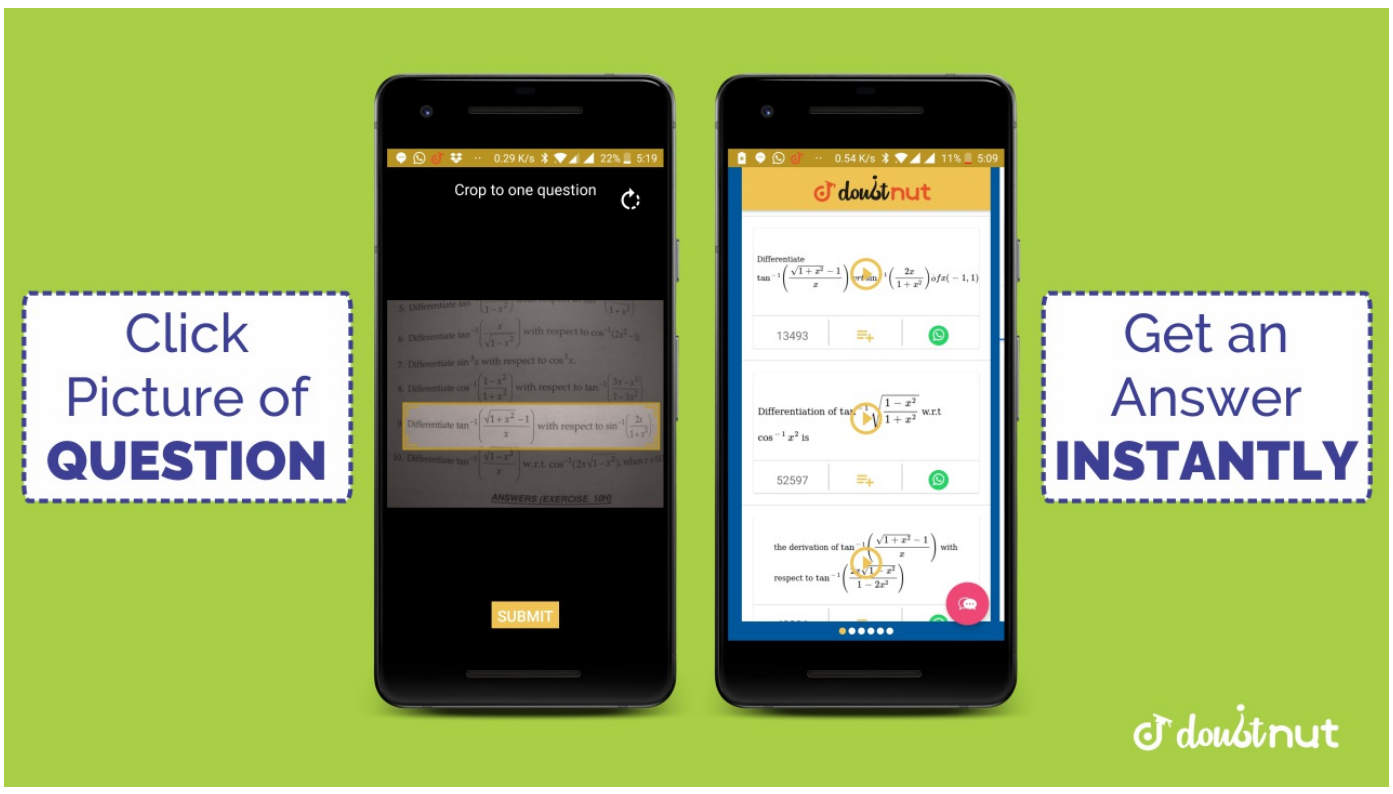
4	In the given figure, PQ is a chord of a circle with centre O and PT is a tangent. If $\angle QPT = 60^\circ$ find $\angle PRQ$ Watch Free Video Solution on Doubtnut
5	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** two tangents RQ and RP are drawn from an external point R to the circle with centre O. If $\angle PRQ = 120^\circ$, then prove that OR= PR+ RQ Watch Free Video Solution on Doubtnut
6	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** $4x^2 + 4bx$ $-\left(a^2 - b^2\right) = 0$ Watch Free Video Solution on Doubtnut
7	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** The points A(4, 7), B(p, 3) and C(7, 3) are the vertices of a right triangle, right-angled at B, Find the values of P. Watch Free Video Solution on Doubtnut
doubtnut पढ़ना हुआ आसान	
8	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** . Find the relation between x and y if the points $A(x, y), B(-5, 7)$ $\text{and } C(-4, 5)$ are collinear. Watch Free Video Solution on Doubtnut

9	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** The 14th term of an A.P. is twice its 8th term. If its 6th term is -8, then find the sum of its first 20 terms. Watch Free Video Solution on Doubtnut
10	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** Solve for x $\sqrt{3}x^2 - 2\sqrt{2}x - 2\sqrt{3} = 0$ Watch Free Video Solution on Doubtnut
11	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** The angle of elevation of an aeroplane from a point P on the ground is 60°. After a flight of 15 seconds, the angle of elevation changes to 30°. If the aeroplane is flying at a constant height of $1500\sqrt{3}$ m, find the speed of the aeroplane Watch Free Video Solution on Doubtnut
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12	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** If A and B are $(2, \ 2) \ and \ (2, \ 4)$, respectively, find the coordinates of P such that $AP = \frac{3}{7}AB$ and P lies on the line segment AB. Watch Free Video Solution on Doubtnut
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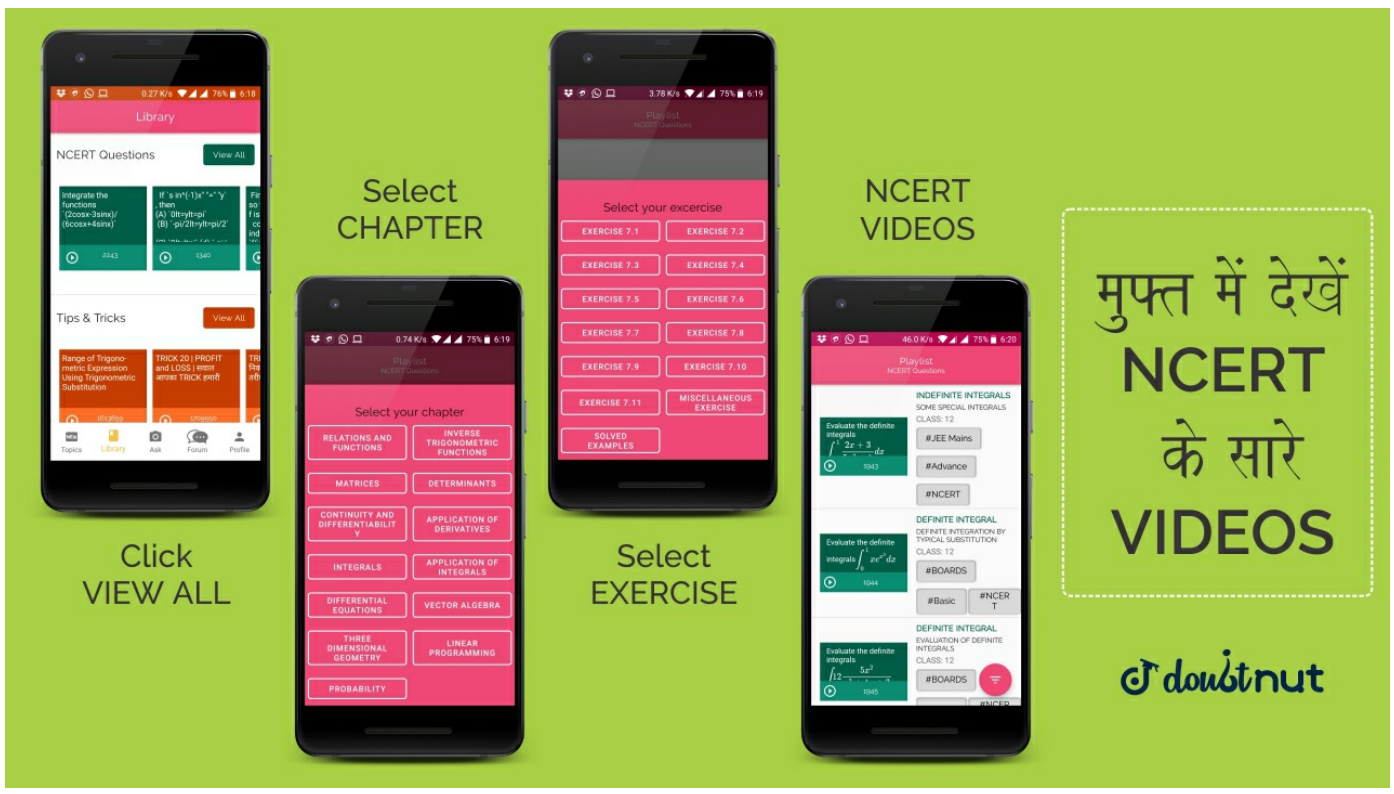
13	The probability of selecting a green marble at random from a jar that contains green,white and yellow marble is 1/3. The probability of selecting a white marble random from the jar is 2/9.If the jar contains 8 yellow marbles, find the total numbers of marbles in the jar Watch Free Video Solution on Doubtnut
14	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** Due to sudden floods, some welfare associations jointly requested the government to get 100 tents fixed immediately and offered to contribute 50% of the cost, If the lower part of each tent is of the form of a cylinder of diameter 4.2 m and height 4 m with the conical upper part of same diameter but of height 2.8 m, and the canvas to be used costs 100 per sq. m, find the amount the associations will have to pay. What values are shown by these associations [Use $\pi = \frac{22}{7}$] Watch Free Video Solution on Doubtnut
15	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** A hemisphereical bowl of internal diameter 36cm contains a liquid. This liquid is to be filled in cylindrical bottles of radius 3cm and height 6cm. How many bottles are required to empty. Watch Free Video Solution on Doubtnut
doubtnut पढ़ना हुआ आसान	
16	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** The diagonal of a rectangular field 60 metres more than the shorter side. If the longer side is 30 metres more than the shorter side, find the sides the field. Watch Free Video Solution on Doubtnut
17	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** Find the 60th term of the AP 8, 10, 12, ……., if it has a total of 60 terms and hence find the sum of its last 10 terms.

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18	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** A train travels at a certain average speed for a distance of 54 km and then travels a distance of 63 km at an average speed of 6 km/h more than the first speed. If it takes 3 hours to complete the total journey, what is its first speed? Watch Free Video Solution on Doubtnut
19	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** Prove that the length of the tangents drawn from an external point to a circle are equal. Watch Free Video Solution on Doubtnut

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20	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** Prove that the tangent drawn at the mid-point of an arc of a circle is parallel to the chord joining the end points of the arc. Watch Free Video Solution on Doubtnut

21	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** The angle of elevation of the top of a tower from a point A on the ground is 30^0. On moving a distance of 20 metres towards the foot of the tower to a point B the angle of elevation increases to 60^0. Find the height of the ttower and the distance of the tower from the point A. Watch Free Video Solution on Doubtnut
22	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** A card is drawn at random from a well-shuffled deck of playing cards. Find the probability that the card drawn is (a) a spade or an ace (b) a black king (c) neither a jack nor a king (d) either a king or a queen. Watch Free Video Solution on Doubtnut
23	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** Find the values of k so that the area of the triangle with vertices (1, -1), (-4, 2k) and (-k, -5) is 24 sq. units. Watch Free Video Solution on Doubtnut
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24	**CLASS 10 BOARDS MATHS SOLUTIONS - 2015** . In the following figure, PQRS is square lawn with side PQ = 42 metres. Two circular flower beds are there on the sides PS and QR with centre at O, the intersections of its diagonals. Find the total area of the two flower beds (shaded parts). Watch Free Video Solution on Doubtnut
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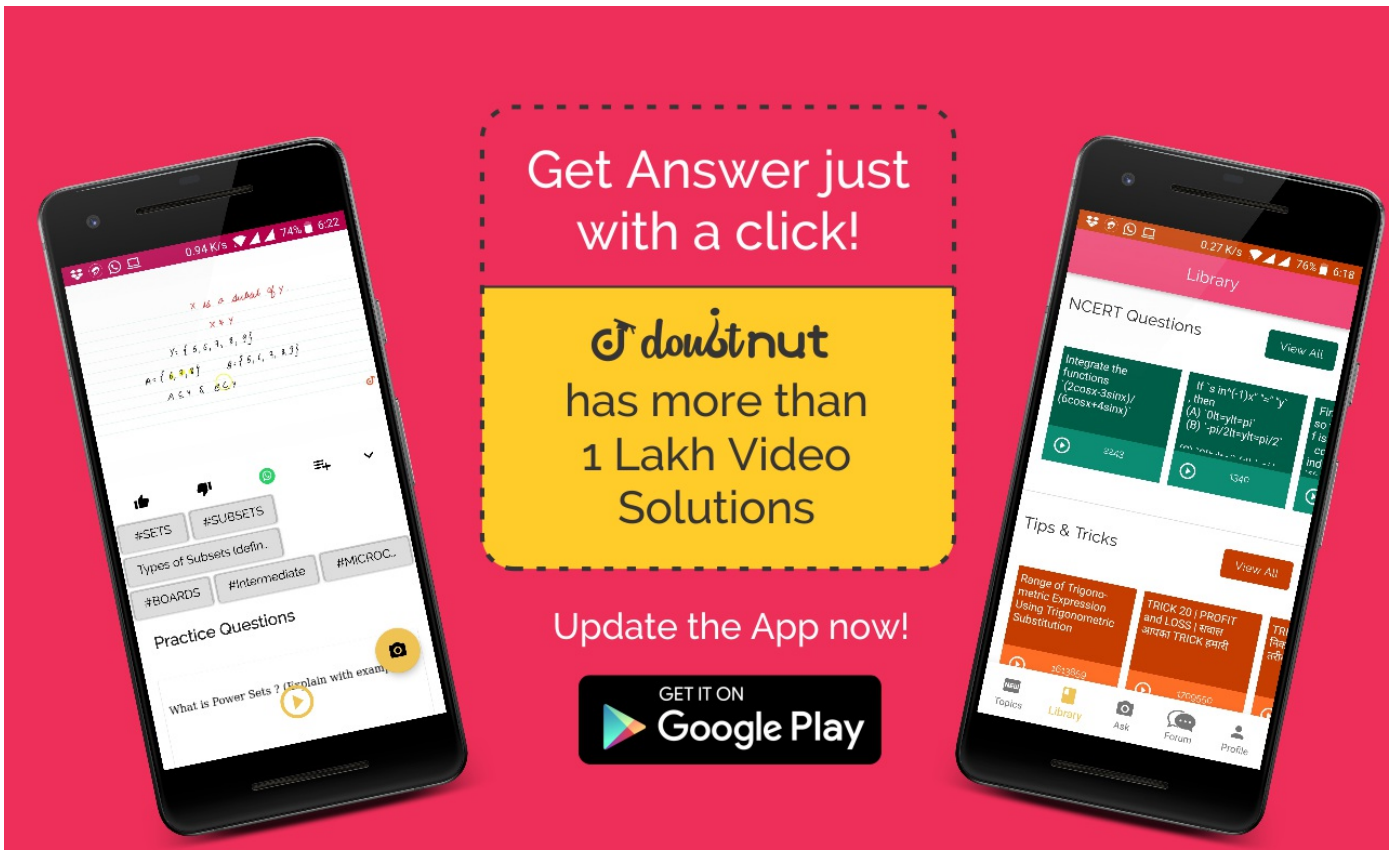
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