

# JSUNIL TUTORIAL

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CBSE CCE NCERT Class X, Mathematics

(Practice Paper-1 / Guess Paper-1)

Formative Assessment - III (FA-3)

Time: 1 ½ Hours

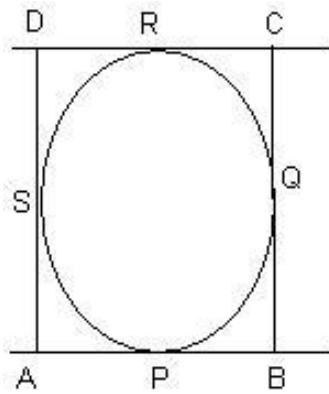
M.M.: 40

1. (i) Write the general form of a quadratic equation in standard form.  
(ii) If  $6x^2 - x - 1 = 0$  then  $x = \dots\dots\dots$ ?  
(iii) The  $n^{\text{th}}$  term of an AP:  $a, a + d, a+2d, \dots\dots\dots$  is  $t_n = \dots\dots\dots$   
(iv) In AP:  $a, a + d, a+2d, \dots\dots\dots l$ , the  $P^{\text{th}}$  term from the end =  $\dots\dots\dots$   
(v) Find the sum of the AP:  $4, 9, 14, \dots\dots\dots 89$ .  
(vi) Find the distance between the points  $(3,4)$  and  $(6, -3)$ .  
(vii) Angle of elevation =  $\dots\dots\dots$   
(viii) Write the equation of x-axis = ?  
(ix) Abscissa of any point on the y-axis is  $\dots\dots\dots$   
(x) Which term of the AP:  $2.9, 3.2, 3.5, 3.8, \dots\dots\dots$  is 8 ?
2. The product of two consecutive positive integers is 306. We need to find the integers.
3. A train travels 360 km at a uniform speed if the speed had been 5 km/hr more, it would have taken 1 hr less for the same journey. Find the speed of the train.
4. How many three digit numbers are divisible by 7 ?
5. Find the point on the x-axis which is equidistant from  $(2, -5)$  and  $(-2, 9)$ .
6. Prove that the tangents drawn at the ends of a diameter of a circle are parallel.
7. A quadrilateral ABCD is drawn to circumscribe a circle. Prove that

$$AB + CD = AD + BC$$

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8. Draw a triangle ABC with side  $BC = 6$  cm  $AB = 5$  cm and  $\angle ABC = 60^\circ$ , then construct a triangle whose sides are  $\frac{3}{4}$  of the corresponding sides of the triangle ABC.
9. Find the area of the quadrilateral whose vertices are taken in order  $(-4, -2)$ ,  $(-3, -5)$ ,  $(3, -2)$  and  $(2, 3)$ .
10. A 1.5 m tall boy is standing at some distance from a 30 m tall building. The angle of elevation from his eyes to the top of the building. Increase from  $30^\circ$  to  $60^\circ$  as the he moves towards the building. Find the distance he walked towards the building.
11. (a) The altitude of a right triangle is 7 cm less than the base. If the hypotenuse is 13 cm, find the other two sides.
- (b) How many multiples of 4 lie between 10 and 250