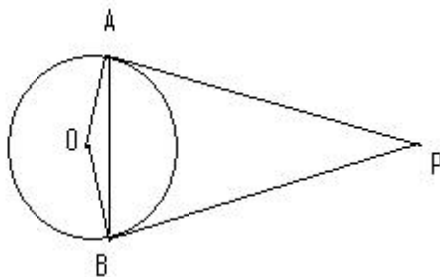




8. A wheel has diameter 84 cm. The number of complete revolutions it will take to cover 792 meters is  
(A) 100            (B) 200            (C) 150            (D) 300
9. If the altitude of sun is  $60^\circ$ , then the height of the vertical tower that will cast a shadow of length 30 m is  
(A)  $30\sqrt{3}$   
(B) 15 m  
(C)  $10\sqrt{3}$   
(D)  $15\sqrt{3}$
10. In a single throw of a pair of dice. The probability of getting a doublet is  
(A) 1  
(B)  $\frac{1}{36}$   
(C)  $\frac{1}{6}$   
(D)  $\frac{5}{6}$

### SECTION -B

11. By method of completing squares, solve  $2x^2 + x - 4 = 0$ .
12. If  $\frac{1}{x+2}$ ,  $\frac{1}{x+3}$  and  $\frac{1}{x+5}$  are in A.P. find the value of x.
13. In figure given below OP is equal to diameter of the circle. Prove that ABP is an equilateral triangle.



14. A horse is placed for grazing inside a rectangular field 40 m X 36 m and is tethered to one corner by a rope 14 m long. Over how much area can it graze?
15. A rectangular piece of paper is 71 cm long and 19 cm wide. A right circular cylinder is formed by rolling the paper along its length. Find the volume of the cylinder.
16. Find the value of 'k' if the point P(0, 2) is equidistant from the points (3, k) and (k, 5).
17. If  $(-\frac{1}{3}, 0)$  is one of the point of trisection of segment joining the points (1, -2) and (-3, 4).  
Find other point of trisection.