

**Topic : Fundamentals of Mathematics**

**Type of Questions**

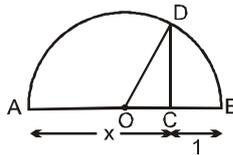
**M.M., Min.**

**Subjective Questions (no negative marking) Q.1 to Q.6**

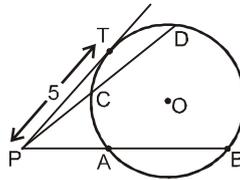
**(4 marks, 5 min.)**

**[24, 30]**

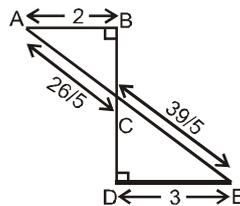
1. Find the value of CD in terms of x, in the adjoining figure, where O is the centre of semicircle.



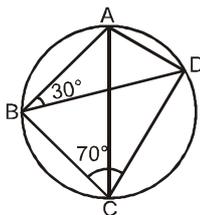
2. In the given figure (circle),  $PT = 5$ ,  $PD = 7$  and  $PA = 2$ , then the value of  $PB - PC = ?$



3. In the adjoining figure find the value of BD.



4. Let ABCD is a cyclic quadrilateral. Then, find the  $\angle ADB$ .



5. Plot the straight lines on the co-ordinate axes.

(i)  $y = x$

(ii)  $y = -x$

(iii)  $y = x + 1$

6. Convert into 'perfect square + some constant'.

(i)  $x^2 + x$

(ii)  $x^2 + 3x$

# Answers Key

1.  $\sqrt{x}$       2.  $\frac{125}{14}$       3. 12      4.  $40^\circ$