

Problem 1.

If  $\tan^{-1}3 + \cot^{-1}x = \pi/2$ , then  $x = ?$

(a)  $1/3$

~~(b)~~ 3

(c) 4

(d)  $1/4$

Solution:

We know that  $\tan^{-1}x + \cot^{-1}x = \pi/2$

$$\text{So, } \tan^{-1}3 = \pi/2 - \cot^{-1}x = \tan^{-1}x$$

$$\therefore \boxed{x=3}$$