**Find the equation of the line passing through the point (√3,4) and inclined at an angle of 60° with the positive x-axis.**

y = mx + c

m = tan60 =

Substitute: y = + c = 4 🡪 c = 1 🡪 y=x + 1

**Given that tan15 = –√3 + 2, find the equation of the line passing through the origin inclined at an angle of 75° with the positive x-axis.**

tan75 = tan(90–15) = = x = +2 🡪 y = (+2)x

tan(90–x) =

**Lines L1 and L2 have equations x + y = 10 and y = – 3 respectively. Find the acute angle between these 2 lines.**

ϴ1

ϴ1 = m1 = 1 🡪 Angle = tan-1(1)

ϴ2 = m2 = 🡪 Angle = tan-1( )

ϴ2

ϴT = tan-1(1) + tan-1( )

|  |  |
| --- | --- |
| Radians | Degrees |
|  | 12 |
|  | 15 |