

### Formulae -

1) If  $\cos x = \cos y$ ,  $x = 2n\pi \pm y$  ;  $n \in \mathbb{Z}$

2) If  $\tan x = \tan y$ ,  $x = n\pi + y$  ;  $n \in \mathbb{Z}$   
 $x$  &  $y$  are not odd multiples of  $\frac{\pi}{2}$

We need trigonometric equations because graphs of  $\sin x$ ,  $\cos x$ ,  $\tan x$  are periodic, more than 1 sol<sup>n</sup> exists. So, to cover all sol<sup>n</sup>s, we express sol<sup>n</sup> in terms of general sol<sup>n</sup>.

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