

TRIGONOMETRIC EQUATIONS

TYPES OF SOLUTION

(1) PRINCIPAL SOLUTION

(2) GENERAL SOLUTION

PRINCIPAL SOLUTION: -CII They are the holution of trigonometric equation for [0,2%) Smo= 5 find mincipal dulution 01 5/30° 150°, 50°

至 50 1500



## Trigonometry Equation & Inequalities CL-01

JEE (Main & Advanced)

MATHS

CAREER INSTITUTE

COLUMN (RANADELENN)



$$06$$
  $8mk = \frac{1}{3}$   
 $x = \frac{8m^{7}(\frac{1}{3})}{100}$   
 $0, x = 0$   
 $0, x = 0$   
 $0, x = 0$   
 $0, x = 0$   
 $0, x = 0$ 



as 
$$tenx=-3$$
 $iF + tenx=-3$ 
 $x= ten^{1}3$ 
 $and$ ,  $ufn$ 
 $\pi-0$ ,  $a\pi-0$ 
 $\pi-1en^{1}3$ ,  $a\pi-ten^{1}3$ 

3)

至, 登, 经---



**CL-01** 

(5) 
$$8mx=1$$
 $x = \frac{\pi}{4}, 2x + \frac{\pi}{4}, 4x + \frac{\pi}{4} - \dots$ 
 $8m(2x + 0) = 8m0$ 
 $x = 2nx + \frac{\pi}{4}$ 

(6)  $6mx = -1$ 
 $x = -\frac{\pi}{4}, \frac{3\pi}{4}, \frac{2x + 3\pi}{4} - \dots$ 
 $x = 2nx - \frac{\pi}{4}$ 

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(3) 
$$t_{x}=0$$

$$0, \overline{x}, 2\overline{x} - - x = n\overline{x}$$
(8)  $t_{x}=x$  not defined
$$\frac{\overline{x}}{2}, \frac{3\overline{x}}{3}, \frac{5\overline{x}}{6} - - x = (2n-1)\frac{x}{2}$$
 Then tenx is not defined



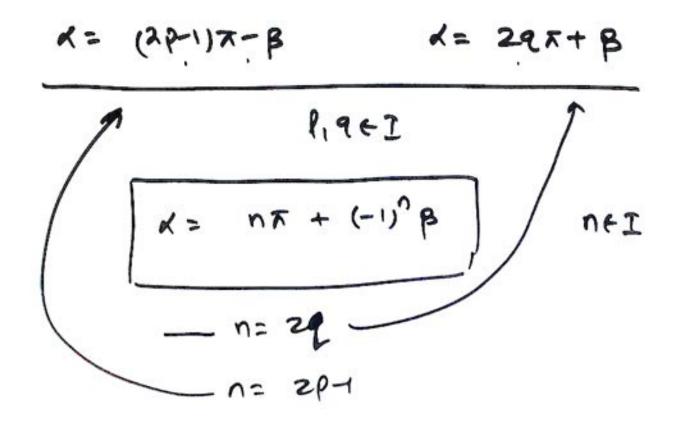
GENERAL SOLUTIONS Ed 1/ gus = = = Periodic function 주, 뜻 27+ 8, 21+ 56 Sm(25+0) = 8ma

ーー AR+ 音, AR+ 管 infinite Muliens

# It is a general formula in (nfI) which can represent infinite holutions of the equation.

(1) 
$$SmA = SmB$$
 $SmA - SmB = 0$ 
 $2605 (A+B) Sm (A-B) = 0$ 
 $458 = (2P-1) T$ 
 $4+B = (2P-1)T$ 
 $4+B = (2P-1)T$ 
 $4+B = 24T$ 





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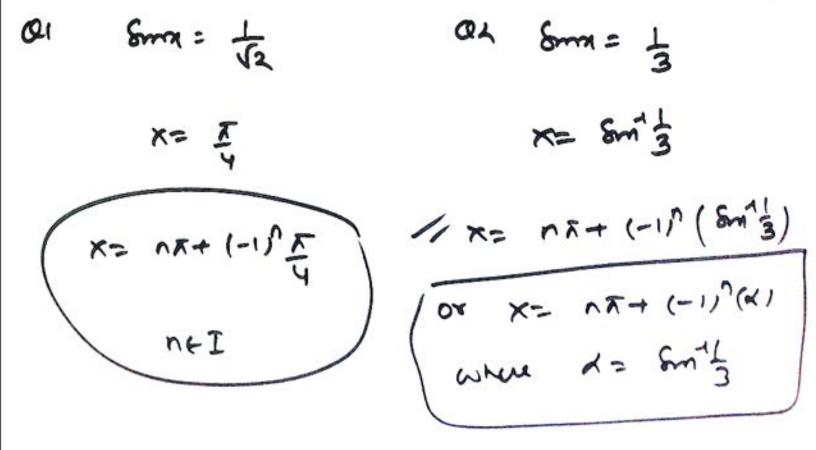


$$A = n\pi + (-1)^n \beta$$

$$A =$$

x=-3 / x+3= 45/2x-5=5 x= nx+ (-1)^(-3)/ nx+ (-1)^(43)







01 
$$6mx=1$$
 $x=2nx+x_1$ 
 $x=2nx+x_2$ 
 $x=2nx+x_3$ 
 $x=2x+x_3$ 
 $x=2x+x_3$