(0020 45,40 2 1 CUS (A+B): CUS ACUSB - SINASINA sin (A+1)= sin A cos B + cos Asins Jung H = 2 sun A cos A CODAA = CODAA - SINAA => CosA = 1+ cos2A = 2 cos A - 1 $=1-2\sin^2A$ os Sin2 A = 1- Co 2A (0)2A = 1+ Cos2A A = X COS X = 1+ COSX > COS X = + 1 + COSX $Sin A = 1 - \cos A$ $sin X = \pm \sqrt{1 - \cos X}$ $\pm 2 G 21$

EN DMH= 3 , +EGIL 900 < 1 < 100 WA = - 4 $\neq \in Q \mathcal{I}$ as sina A = 2 suit as A =2 (3)(-4) = - 24 b) (wax = cus2x - , sin2x) $= \frac{16}{25} - \frac{9}{25}$ 2 - 1 C) tan 24 = - 24 / (+/2660) d) 511/2 = 1/2 (1-cos A) = 1/2 (1+4) = 1/9 = 19 z 3 /101 e) cos 4 = (1+cos A) = 1/1(1-4) = 1/01 f) fan 1/2 = 3 |

$$\begin{array}{lll}
\frac{13}{13} & \frac{1}{14} & \frac{1}{13} &$$

 $\begin{cases} \int \int dx dx = -\frac{2}{3} \end{cases}$

$$tan 3t = 2tan A$$

$$1 - tan^{2}A$$

$$ban \frac{A}{2} = \frac{1 - cos A}{5mA} = \frac{sin A}{(4cos A)}$$

$$tan 15^{\circ} = tan (\frac{20}{2})^{\circ}$$

$$= \frac{1 - cos 30^{\circ}}{5m30^{\circ}}$$

$$= \frac{1 - \frac{1}{2}}{2}$$

$$= \frac{2 - \sqrt{3}}{2}$$

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$$= \frac{1 - cos x}{2tan x}$$

$$= \frac{tan x - cos x}{2tan x}$$

 $H21 \quad CO3X = CO5X - 3CO5X sin^2X$ CO3X = CO5(X + 2X) $= CO5X CO52X - sin^2X sin^2X$ $= CO5X (CO5^2X - Sin^2X) - SinX (2Sin + CO5X)$ $= CO5X - CO5X Sin^2X - 2CO5X Sin^2X$ $= CO5^3X - 3CO5X sin^2X$

4.30 $\cos 4x = \cos x - 6 \sin x \cos x + 4 \sin x$ $\cos 4x = \cot 2(2x)$ $= (\cos^2 2x - \sin^2 2x)$ $= (\cos^2 2x)^2 - (\sin 2x)^2$ $= (\cos^2 x - \sin^2 x)^2 - (2\sin x \cos x)^2$ $= \cos^4 x - 2\sin^2 x \cos^2 x + \sin^4 x$ $= 4 \sin^2 x \cos^2 x$ $= \cos^4 x - 6 \sin^2 x \cos^2 x + \sin^4 x$ ftu4 $\int ee^{2}x = \frac{2secx+2}{secx+2+cox}$

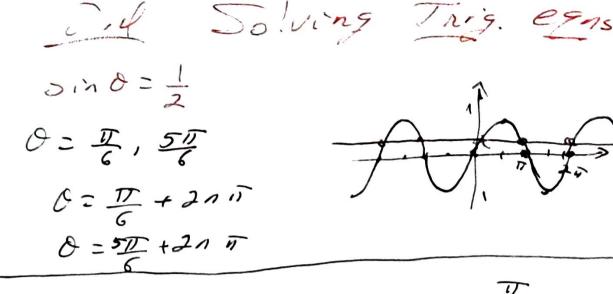
$$\frac{3ec^{2}x}{2} = \frac{1}{\cos^{2}x}$$

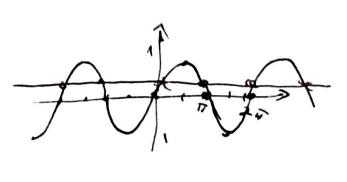
$$= \frac{1}{1+\cos x}$$

$$= \frac{2}{1+\cos x} \frac{1+\sec x}{1+\sec x}$$

$$= \frac{2+2\sec x}{1+\sec x+\cos x+\cos x}$$

$$= \frac{2+2\sec x}{2+\sec x+\cos x}$$





7 QI I $QII \frac{(n-1)iI}{2}$ GIII (0+1) 17 130 QV (2n-1)1 2317

Sinx taux = Sinx Sinx=0 tanx=1 Sinx Faux - sinx = 0 Sinx (fanx -1) =0 Smx=0 tanx=1

X = + 10, + 517, + 40, --X=0,117,120,--このか X= # 17

Ex Solve 2 sin2t-cost-1=0 2(1- cost) - cost -1=0 181 2-2002/-coot-1=0 - 2 (20026-cost +1=0 Cost = -1 Cost = $\frac{1}{2}$ t=17 t=17,150 t=11+241, t= I +211, t= 50+211 [0,27) t: 0, 50 4 sin 2 x tanx - tanx = 0 [0, 27) tanx (4 sin 2x - 1) = 0 45112x-1=0 taux = 0 4 sin 2 = 1 Sin2x=1 => 5,mx = £ = $X = 0, \overline{u}, \overline{6}, \overline{50}, \overline{70}, \overline{110}$

-X Solve! Coc 24-4=0 [0,00) (csc2u-2) (csc2u+2)=0 Csc 2u = = 2 (SC224=2 (SC24 = ± 1/2 = 5/2) Sin 24 = + 2U= II, 30, 50, 70 U= =, 31, 50, 71, 90, 110, 130 5 sino tano - 10 tano + 35 mo - 6 = 0 5 Kano (sino-2) + 3 (sino-2) =0 (5 fand +3) (sind -2)=0 sin 0 = 2 > 1 # fan 0 = -= 0 = fai = 10 = 17 - fan 3 0 = 20 - fan 3

#10 2, sin 2x = 1- Sinx [0,24) 25in2x+Sinx-1=0 5inx = -1 $5inx = \frac{1}{2}$ X= 31, 11, 500 12 (1- sinx)=(13 cosx) 2 [0,20] 1-2511x+5112x=3cos2x Sin2x-2sinx 4.1 - 3 (1-15inx)=0 45112x-2514x-2=0 Sin x = 1 $Sin x = \frac{-1}{2}$ X = # , 75, 11 11 LET 1- SIMX = 13' COX 1 = V3 COOX + Sinx (= = CODX + = senx CUS \$3 - CUS X CUS II + S'1X S. 4 9 1 Con T = Con (x - #) メーを二子のメニ蛋1 X- = 5 = 5 = 1 × = 11 V

$$\frac{2d}{dt} = \frac{1}{2} = \frac{1}{2}$$

$$\frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2}$$

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B-II = 31 3 8 = T