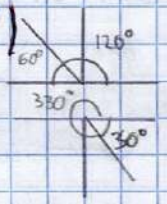
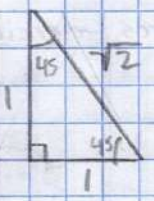
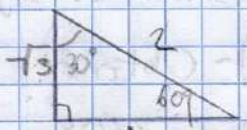
$\text{Sen} = \frac{co}{hip}$ $\cos = \frac{ca}{hip}$ $hip = \frac{co}{ca}$ $\csc = \frac{hip}{co}$ $\sec = \frac{hip}{ca}$ $\cot = \frac{ca}{co}$

5) Colocar en el paréntesis de la derecha una V si la afirmación del lado izquierdo es verdadera o falsa.

a) $\text{sen}\,120° = \cos 330°$ (V)



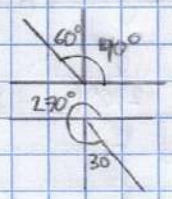




$\text{Sen}\,60° = \cos 30°$

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

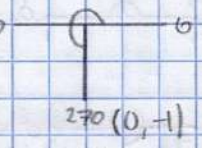
c) $\cos 300° = \text{sen}\,150°$ (V)



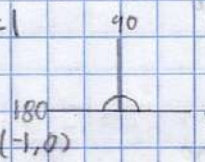
$\cos 30° = \text{Sen}\,60°$

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

d) $-\text{sen}\,270° = \cos 180°$ (F)



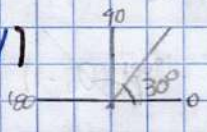
$-\text{Sen}\,270° = 1$

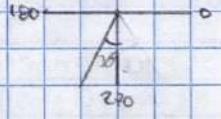


$\cos 180° = -1$

$1 \neq -1$

f) $\cos 30° = -\text{sen}\,300°$ (V)

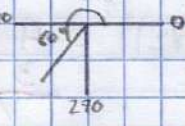


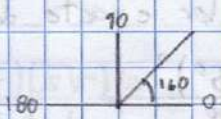


$\cos 30° = -\text{Sen}\,30°$

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

h) $\tan 240° = 2\,\text{sen}\,60°$ (V)



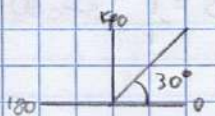


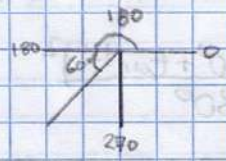
$\tan 60° = 2\,\text{Sen}\,60°$

$\sqrt{3} = (2)\frac{\sqrt{3}}{2}$

$\sqrt{3} = \sqrt{3}$

J) $\text{sen}\,30° = \cos 240°$ (F)

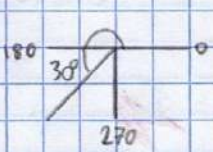


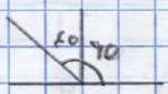


$\text{Sen}\,60° = \cos 60°$

$\frac{\sqrt{3}}{2} \neq \frac{1}{2}$

L) $\sec 210° = \frac{4}{3}\cos 150°$ (F)





$\sec 60 = \cos 60$

$\frac{2}{1} \neq \frac{1}{2}$

$Sen = \frac{co}{hic}$ $cos = \frac{ca}{hip}$ $tan = \frac{co}{ca}$ $csc = \frac{hip}{co}$ $sec = \frac{hip}{ca}$ $cot = \frac{ca}{co}$

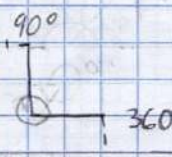
Zárate Bañuelos Francisco Leonel.

T1 Trigonometría $x = Cos$ $y = Sen$

Resolver los siguientes ejercicios de la serie trigonometrica

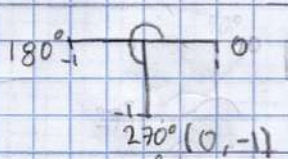
1) - Obtener

a) $sec\ 360°$



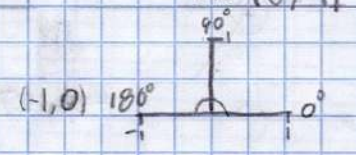
$Sen\ 360° = 0$
$cos\ 360 = 1$
$Sec = \frac{1}{1} = 1$ //

b) $cot\ 270°$



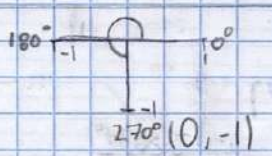
$Sen\ 270° = -1$ $cot = \frac{0}{-1} = 0$ //
$cos\ 270° = 0$
$tan\ 270° = \frac{-1}{0} = Indf$

c) $tan\ 180°$



$Sen\ 180° = 0$
$cos\ 180° = -1$
$tan = \frac{0}{-1} = 0°$ //

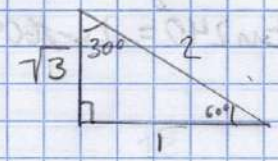
d) $csc\ 270°$



$Sen\ 270° = -1$
$cos\ 270° = 0$
$csc\ 270° = \frac{1}{Sen\ 270} = \frac{1}{-1} = -1$ //

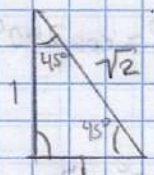
2) Determinar el valor exacto de las siguientes expresiones

b) $= \frac{(sec\ 45°\ csc\ 45°)^2}{tan\ 45° + sec\ 60°} = \frac{((\sqrt{2})(\sqrt{2}))^2}{1+2} = \frac{4}{3}$ //



$Sec\ 45° = \frac{\sqrt{2}}{1}$ $csc\ 45° = \frac{\sqrt{2}}{1}$ $tan\ 45° = \frac{1}{1}$ $sec\ 60° = \frac{2}{1}$

c) $= \frac{[cot\ 30°\ tan\ 60° + tan^{45°}]^2}{csc\ 30°}$



$cot\ 30° = \frac{\sqrt{3}}{1}$ $tan\ 60° = \frac{\sqrt{3}}{1}$ $tan\ 45 = 1$ $csc\ 30 = \frac{2}{1}$

$\frac{((\sqrt{3})(\sqrt{3})(1))^2}{2} = \frac{9}{2}$ //