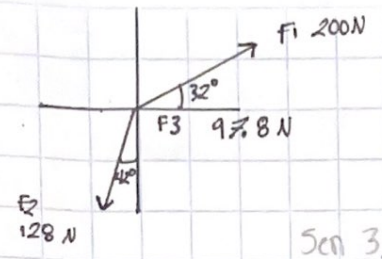
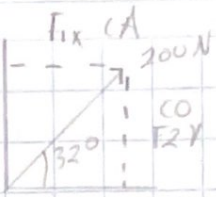
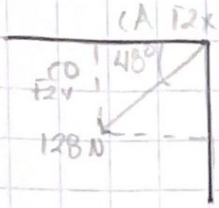
Uber Emmanuel López Pulido





$\text{Sen } 32° = \frac{F_1Y}{200N} = F_1Y = \text{Sen } 32°(200N) = 105.983\ N$

$\cos 32° \frac{F_1x}{200N} = F_1x = \cos 32°(200N) = 169.609\ N$



$\text{Sen } 48° = \frac{F_2Y}{128N} = F_2Y = \text{Sen } 48°(128N) = -95.122\ N$

$\cos 48° = \frac{F_2x}{128N} = F_2x = \cos 48°(128N) = -85.648\ N$

$F_3x = 97.8\ N$

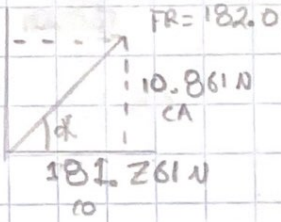
$Fx = 169.609\ N - 85.648\ N + 97.8\ N = 181.761\ N$

$FY = 105.983\ N - 95.122\ N = 10.861\ N$

$\sqrt{(181.761)^2 + (10.861)^2}$

$\sqrt{33155.022}$

$= 182.085\ N$



$\tan^{-1} \frac{181.761}{10.86} = 9.1758N$

$9.1758 - 90 = 80.8242 = \underline{80° 49'' 27.12,}$

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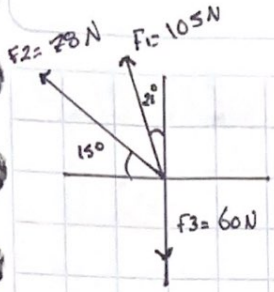
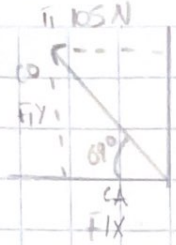
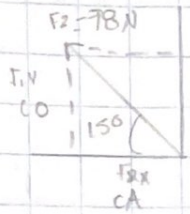




Sen 69° = F1Y = Sen 69° (105N) = 92.7953 N

Cos 69° = F1X cos 69° (105N) = -49.1326 N



Sen 15° = F2Y = Sen 15° (78N) = 18.2087 N

Cos 15° = F2X = cos 15° (78N) = -75.8448 N

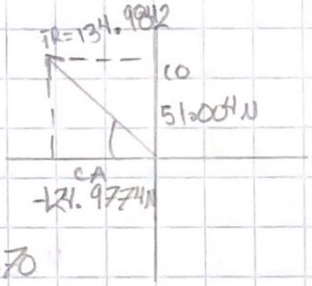
$F_X = -49.1326\,N - 75.8448\,N = -124.9774\,N$

$F_3 = -60\,N$ $\quad F_Y = 92.7953\,N + 18.2087\,N - 60\,N = 51.004\,N$

$\sqrt{(-124.9774N)^2 + (-51.004N)^2}$

$\sqrt{18220.7585\,N}$

$= 134.9842\,N$



$\tan^{-1} \frac{51.004}{-124.9774} = .4081\,N = -24.6670$

$90 - 24.6670 = 65.333 = \underline{65°\ 19''\ 58.8'}$