Marolay Ducke

C181

Autoevaluacion 5.0

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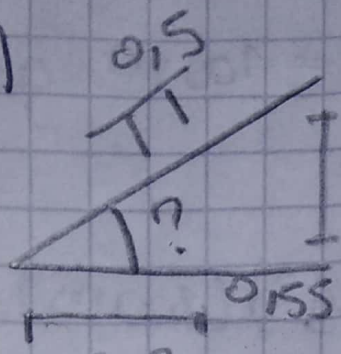


$$\tan\alpha = \frac{0.05}{0,2}$$

$$\alpha = \tan^{-1}\left(\frac{0,05}{0,2}\right)$$

$$\alpha = \tan^{-1}\left(\frac{0.05}{0,2}\right)$$

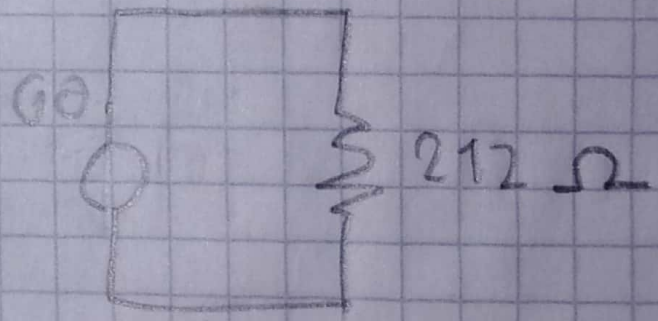
$$\alpha = 14.03^{\circ}$$

5.

$V = I * R$

$I = \frac{V}{R}$

$R = \frac{V}{I}$



$R_T = 212\ \Omega$

$I = \frac{60}{212} = \frac{15}{53}$

$V = \frac{15}{53} * 120\Omega = 33.96$ //

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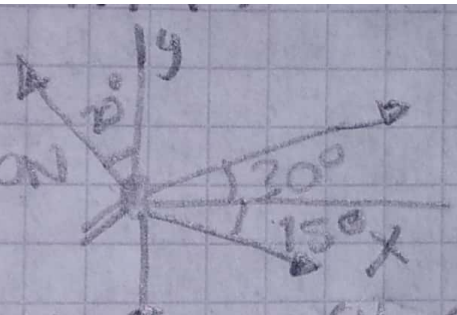


$$\sum F_x = 150\cos 30° + 80\cos 110° + 110\cos 270 + 100\cos 360 - 15°$$

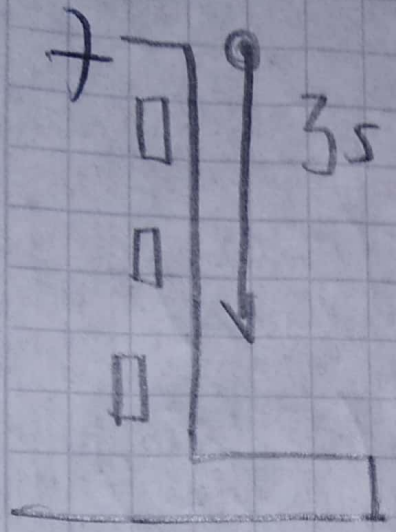
$$F_x = 199.13N$$

$$\sum F_y = 150\operatorname{sen} 30° + 80\operatorname{sen} 110° + 110\cos 270 + 100\cos 360 - 15°$$

$$F_y = 14,29\,N$$

$$F = \sqrt{199.13N^2 + 14,29\,N^2}$$

$$F = 199,65\,N$$



$V_0 = 0$
$t = 3s$
$h1 = 100m$
$g = 9,8 m/s^2$

$V_f^2 = 2 \cdot g \cdot 4h$

$V_f^2 = 2(9,8\ m/s^2)(100m)$

$V_f^2 = 1960\ m^2/s^2$

$V_f = \sqrt{1960\ m^2/s^2}$

$V_f = 44.27\ m/s$

$y = v_0 t + \frac{1}{2} g t^2$

$y = \frac{1}{2}(9,8 m/s^2)(3s)^2$

$y = 44.1\ m$