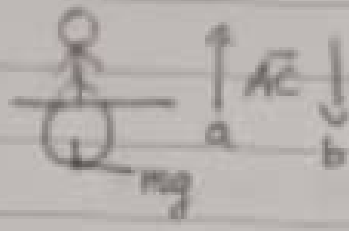
5.1 a)




$\vec{N} + m\vec{g} - m\vec{A_0} = 0$

$N - mg - mA_0 = N - mg - m\frac{g}{4} = 0$

$N - \frac{5}{4}mg = 0$

$w' = N = \frac{5}{4}mg = \frac{5}{4}w$

$w' = 1500\,\text{N}$

b) $N - mg + m\left(\frac{g}{4}\right) = 0$

$w' = w - \frac{w}{4} = \frac{3}{4}w$

$w' = 900\,\text{N}$

5.2 a) $\vec{F}_{cen} = -m\vec{\omega} \times (\vec{\omega} \times \vec{r})$

Untuk $\vec{\omega} \perp \vec{F} \rightarrow F_{cen} = m\omega^2 r^2 r$

$\omega = 100\,\text{s}^{-1} = 1000\,\text{rad s}^{-1}$

$F_{cen} = 10^{-6} \times (1000\,\text{rad})^2 \times 1 - 6r = 5\text{N}$

b) $\frac{F_{cen}}{F_g} = \frac{m\omega^2 r}{mg}$

$= \frac{(1000\,\text{rad})^2 1}{980} = 5.04 \times 10^4$

1

inii gais untuk nomor 5.1 sama 5.2

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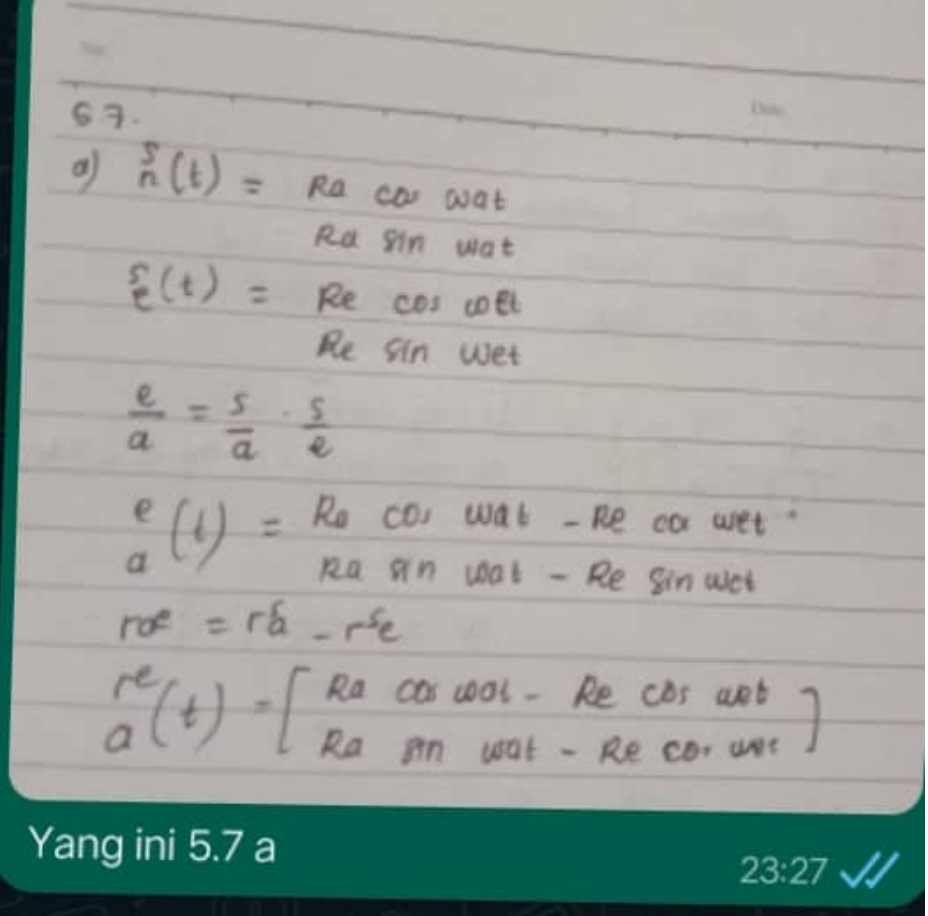


Yang ini 5.7 a

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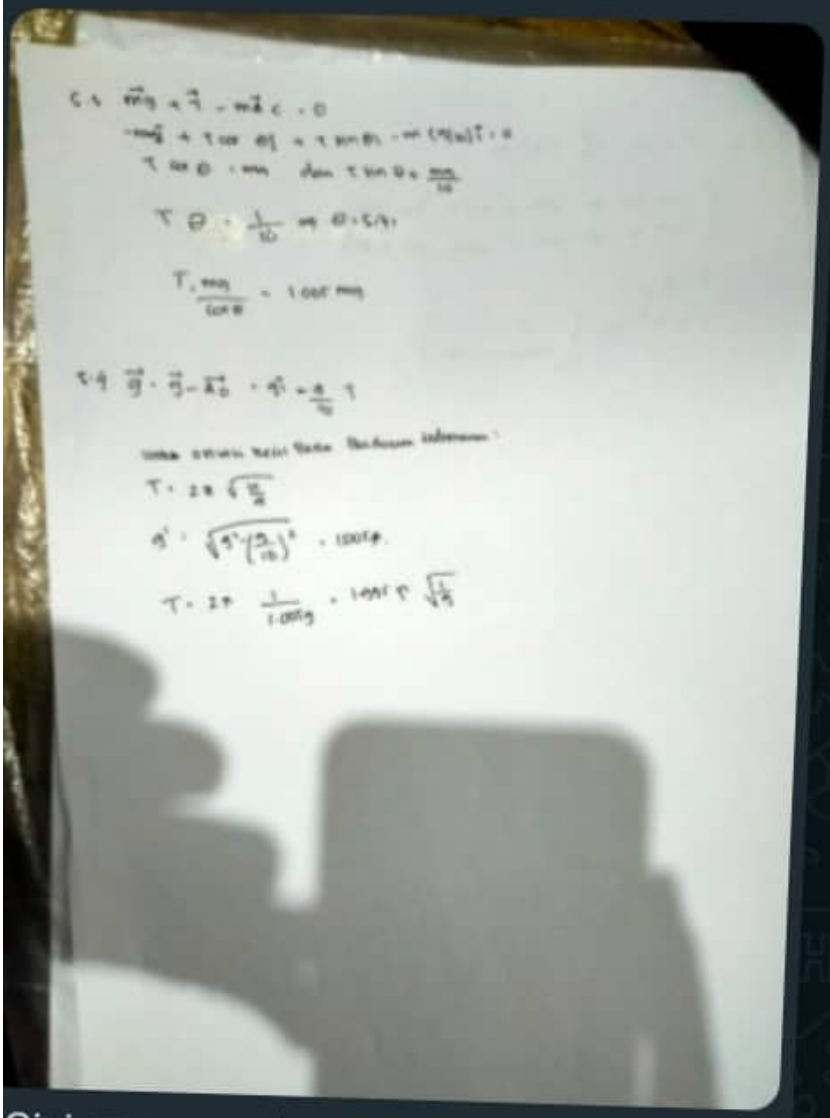
Indah



Gini ga guys cobaa ge cek

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5.9. Cari : $f = -N mg$ pada (frictional force acting on the box

$\vec{f} - m\vec{A}_0 = m\vec{a}$

karena, f adalah req force maka:

(b) $a = \frac{f}{m} = -\frac{Nmg}{m} = -Ng = -\frac{g}{3}$.

$A = -\frac{g}{2}$. dari atas, $ma - mAc = m'$

maka jawaban (a) adalah

$$a' = a - A_0 = -\frac{g}{3} + \frac{g}{2} = \frac{g}{6}$$

5.6. Jawaban:

a). $\vec{r} = \hat{i}(x_0 + R\cos\Omega t) + \hat{j} R \sin\Omega t$

$\dot{\vec{r}} = -\hat{i}\Omega R \sin\Omega t + \hat{j}\Omega R \cos\Omega t$

$\dot{\vec{r}}\cdot\dot{\vec{r}} = v^2 = \Omega^2 R^2$

$v = \Omega R$

b). $\vec{F} = \vec{F} - \vec{\omega}\times\vec{r}$ kerika $\vec{r} = \hat{i}x' + \hat{j}y'$.

$= \hat{i}\Omega R \sin\Omega t + \hat{j}\Omega R\cos\Omega t - \omega k \times (\hat{i}x' + \hat{j}y')$.

$= \hat{i}\Omega R \sin\Omega t + \hat{j}\Omega R\cos\Omega t - \hat{j}\omega x' + \hat{i}\omega y'$

$\dot{x}' = \omega y' - \Omega R \sin\Omega t$

$\dot{y}' = -\omega x' + \Omega R\cos\Omega t$.

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Winda humanbobrok

$u' = \dot{x}' + i\dot{y}' = \omega y' - \Omega R\sin\Omega t - i\omega x' + i\Omega R\cos\Omega t$

$i\omega u' = -\omega y' + i\omega x'$

$\dot{u}' + i\omega u' = -\Omega R \sin\Omega t + i\Omega R\cos\Omega t = i\Omega R e^{i\Omega t}$

$u' = Ae^{-i\omega t} + Be^{i\Omega t}$

$\dot{u}' = -i\omega A e^{-i\omega t} + i\Omega B e^{i\Omega t}$

$i\omega u' = i\omega A e^{-i\omega t} + i\omega B e^{i\Omega t}$.

$\dot{u}' + i\omega u' = i(\omega+\Omega) B e^{i\Omega t}$, maka $B = \frac{\Omega R}{\omega+\Omega}$.

$u' = A + B = x'(0) + iy(0) = x_0 + R$.

$A = x_0 + R - B$.

$= x_0 + R - \frac{\Omega R}{\omega+\Omega}$. maka $A = x_0 + \frac{\omega R}{\omega+\Omega}$.

$u' = A + B = x'(0) + iy(0) = x_0 + R$.

$A = x_0 + R - B$.

$= x_0 + R - \frac{\Omega R}{\omega+\Omega}$, maka $A = x_0 + \frac{\omega R}{\omega+\Omega}$

$$u' = \left[x_0 + \frac{\omega R}{\omega+\Omega}\right] e^{-i\omega t} + \frac{\Omega R}{\omega+\Omega} e^{i\Omega t}$$

$\dot{u}' = \dot{x}' + i\dot{y}' = \omega y' - \Omega R \sin \Omega t + i\omega x' + i\Omega R \cos \Omega t = i\Omega R e^{i\Omega t}$

$i\omega u' = -\omega y' + i\omega x'$

$\Rightarrow \dot{u}' + i\omega u' = \Omega R \sin \Omega t + i\Omega R \cos \Omega t = i\Omega R e^{i\Omega t}$

$u' = Ae^{-i\omega t} + Be^{i\Omega t}$

$\dot{u}' = -i\omega A e^{-i\omega t} + i\Omega B e^{i\Omega t}$

$i\omega u' = i\omega A e^{-i\omega t} + i\omega B e^{i\omega t}$.

$\Rightarrow \dot{u}' + i\omega u' = i(\omega + \Omega) B e^{i\Omega t}$, maka $B = \frac{\Omega R}{\omega + \Omega}$.

$u' = A + B = x'(0) + iy(0) = x_0 + R$.

$\Rightarrow A = x_0 + R - B$.

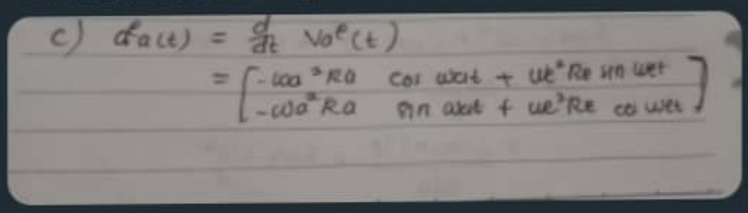
$= x_0 + R = \frac{\Omega R}{\omega + \Omega}$ maka $A = x_0 + \frac{\omega R}{\omega + \Omega}$.

$u' = A + B = x'(0) + iy(0) = x_0 + R$.

$\Rightarrow A = x_0 + R - B$.

$= x_0 + R = \frac{\Omega R}{\omega + \Omega}$, maka $A = x_0 + \frac{\omega R}{\omega + \Omega}$

$u' = \left[ x_0 + \frac{\omega R}{N + \Omega} \right] e^{-i\omega t} + \frac{\Omega R}{\omega + \Omega} e^{i\omega t}$

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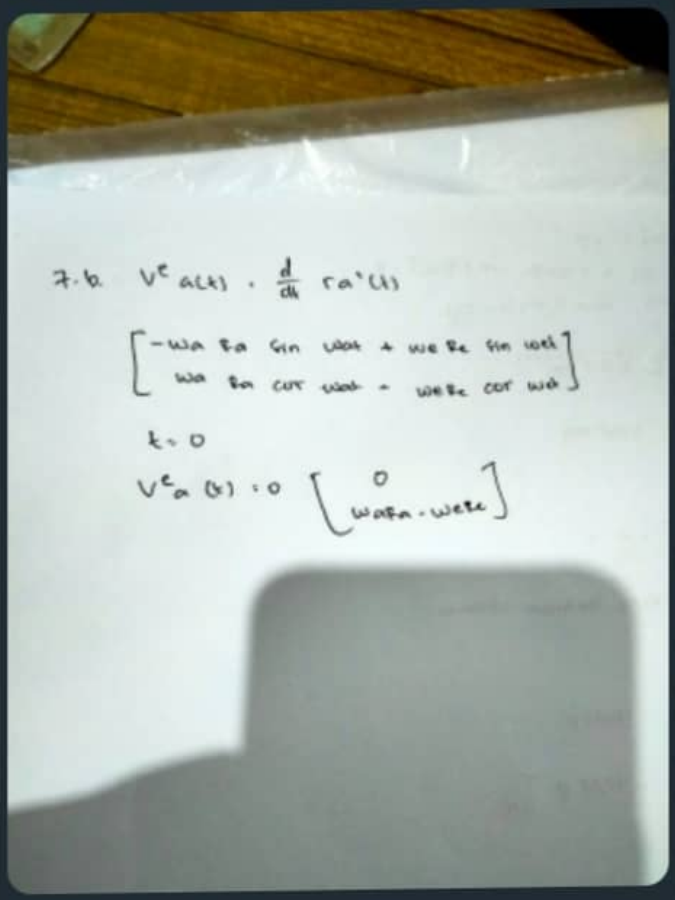


7.b nyaa ginii 23:35

okeeee sipp abis ni aku satuin sekalian susun vc yaa gaiss 23:35

Winda humanbobrok
Okeee put 23:36

Indah
Okee met boboooo 23:40

Message