

Nama: Andri firman Saputra

UTS Fisika Dasar

NIM: 201011402125

No
Date

$$-5,5 \cdot V_0^2 = -1125$$

$$V_0^2 = \frac{-1125}{-5,5}$$

$$V_0^2 = 204,545 \text{ m}^2/\text{s}^2$$

$$V_0 = \sqrt{204,545 \text{ m}^2/\text{s}^2}$$

$$V_0 = 14,3 \text{ m/s}$$

10. a. $\omega(t) = 3t^2 - 4t + 2$

$$\omega(t) = \int 3t^2 - 4t + 2$$

$$\omega(t) = 6t - 4$$

$$\begin{aligned}\omega(2) &= 6(2) - 4 \\ &= 12 - 4 \\ &= 8 \text{ m/s}^2\end{aligned}$$

b. Posisi sudut $= t^3 - 2t^2 + 2t + \theta$

$$t = 1 \text{ s}$$

$$\begin{aligned}\text{posisi sudut} &= 1^3 - 2 \cdot 1^2 + 2 \cdot 1 + \theta \\ &= 1 - 2 + 2 \\ &= 1\end{aligned}$$

$$t = 2 \text{ s}$$

$$\begin{aligned}\text{pos. sudut} &= 2^3 - 2(2)^2 + 2 \cdot (2) + 4 \\ &= 8 - 8 + 4 + 4 \\ &= 8 \text{ rad}\end{aligned}$$