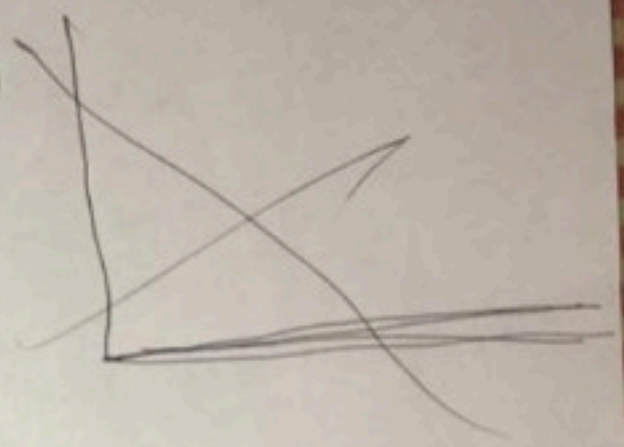
Nama : Sarahwati Tiarma Marbun

Kelas : X MIPA 3

Tugas : Fisika

1.) Pesawat diam = 0

Pesawat terbang



$v_0 = 0$ m/s
$s = 400$ m
$t = 20$ s
} Diketahui

$v_t = \ldots ?$ (ditanya)

* Percepatan

$s = v_0 . t + \frac{1}{2} a t^2$

$s = 0 . 20 + \frac{1}{2} a (20)^2$

$400 = 0 + \frac{1}{2} a . \cancel{400}\ 200$

$400 = 200\ a$

$a = 2\ m/s^2$

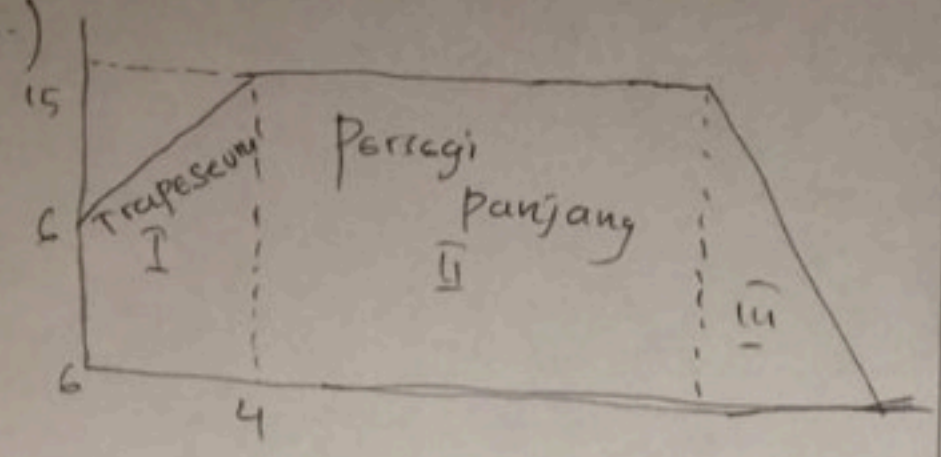
* Kecepatan v_t $(t = 20\ s)$

$v_t = v_0 + a . t$

$= 0 + 2 . 20$

$= 40\ m/s$

3.)



I. $= \frac{1}{2}(15+6).4^2$

$= (21).2 \quad = 42\ m$

II = (Persegi panjang)

$= p \times l$

$= 12.15$

$= 180\ m$

III $= \frac{1}{2}.a.t$

$= \frac{1}{2} \times 4^2 \times 15$

$= 30$

8.) Jatuh bebas ($V_0 = 0$)

*. Diketahui:

$g = 10\ m/s$

$t = 2\ s$

$V_t = ...?$ (tanya)

Ketinggian Jatuhnya:

$S = \frac{0\ m + 40\ m}{2}$

$= 20\ m$

$S = V_0.t + \frac{1}{2} g t^2$

$= 0.2 + \frac{1}{2} 10.(2)^2$

$= 0 + 5.4$

$= 0 + 20$

$= 20\ m$

10.) $V_0 = 0\ m/s$

$g = 10\ m/s^2$

$h = 15\ m$

$t = ...?$ (tanya)

$h = V_0.t + \frac{1}{2} g t^2$

$15 = 0.t + \frac{1}{2}.10 t^2$

$15 = 0 + 5 t^2$

$15 = 5t^2$

$t^2 = \frac{15}{5}$

$t^2 = 3$

$t = \sqrt{3}$ Sekon (s)