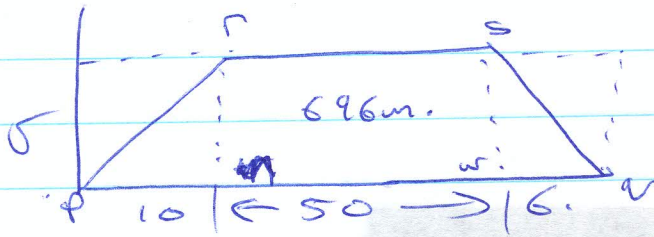
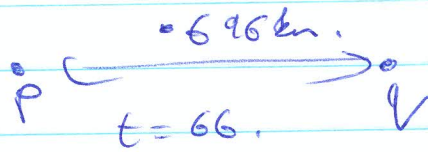


1489



Area: $rpn =$

Need v : Total Area: $\frac{1}{2}(10v) + 50v + \frac{1}{2}6(v) = 696.$

$\rightarrow 5v + 50v + 3v = 696$

$\rightarrow 58v = 696$

$v = \frac{696}{58}$

$v = 12 \text{ m/s}$

58
10
580
116

$\therefore a_1 = \frac{12}{10} = 1.2 \text{ m/s}^2$

$a_2 = \frac{12}{6} = 2 \text{ m/s}^2$

No constant speed:

① $a_1 = 1.2$

② $a_2 = 2$

$t = t_1$

$t = t_2$

$s_1 = s_1$

$s_2 = 696 - s_1$

$u = 0$

$v = 0$

$v = w$

$u = w$

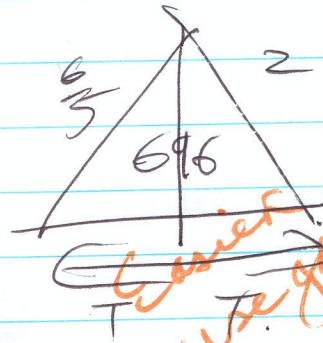
$0^2 = w^2 + 2a_1 s_1$

$w^2 = 0^2 + 2a_2(696 - s_1)$

$\Rightarrow -2(1.2)s_1 = -4(696) + 4s_1$

$\Rightarrow -6.4s_1 = -4(696)$

$\Rightarrow s_1 = \frac{4(696)}{6.4} = 435$



$696 = \frac{1}{2} \left(\frac{nd}{ad} \right) T^2$

$s_1 = \frac{-w^2}{2.4}$

$w^2 = -4 \left(696 + \frac{w^2}{2.4} \right)$

$w^2 = -4(696) - \frac{w^2 4}{2.4}$

$\Rightarrow \frac{4}{3} w^2 = -$

$0 + a_1 t_1 = w$

$\Rightarrow \frac{w}{1.2} = w$

$w + a_2 t_2 = 0 \Rightarrow$

$w - 2t_2 = 0 \Rightarrow t_2 = \frac{w}{2}$