

Extra Kinematics #1 Suzuki approaching a car.

$v_i = 27.8 \frac{m}{s}$   
 $v_c = 22.2 \frac{m}{s}$   
 $t = 7.5s$   
 $120m$

Bike  
 $v_f = (27.8 \frac{m}{s}) + ( \quad ) (7.5s)$

$a_b = ?$   
 $d = 7.5s$

distance bike has to go  $120 + \underline{\hspace{2cm}}$   
 $d = v_i t + \frac{1}{2} a t^2$   
 $a = \frac{d - v_i t}{\frac{1}{2} t^2}$

car  
 $d_c = (22.2 \frac{m}{s}) (7.5s)$   
 $= \underline{\hspace{2cm}}$

Mar 15-11:03 AM