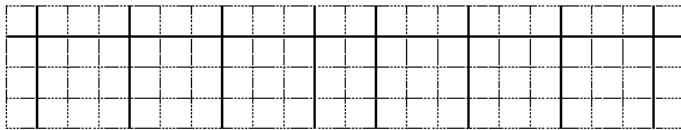


I-43

The driver of a car traveling at 16 m/s suddenly sees a truck that has entered from a side street and blocks the car's path. The car's maximum magnitude acceleration is 6.0 m/s^2 and the driver has a reaction time of 0.75 s. (The reaction time is the time between first seeing the truck and pressing the brake.) The driver stops just in time to avoid an accident.

Motion Diagram



Motion Information

Event 1:

Event 2:

Event 3:

$t_1 =$

$t_2 =$

$t_3 =$

$r_1 =$

$r_2 =$

$r_3 =$

$v_1 =$

$v_2 =$

$v_3 =$

$a_{12} =$

$a_{23} =$

Mathematical Analysis

I-43

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