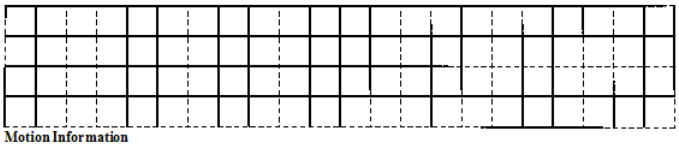
I-47

A rocket ship is launched from rest from a space station. Its destination is 1.0 x 10^{11} m away. The ship is programmed to accelerate at 7.4 m/s^2 for 12 hours. After 12 hours, the ship will travel at constant velocity until it comes within 1.0 x 10^{10} m of its destination. Then, it will fire its retrorockets to land safely.

Motion Diagram



Motion Information

Event 1:	Event 2:	Event 3:	Event 4:
t_1 =	t_2 =	t_3 =	t_4 =
r_1 =	r_2 =	r_3 =	r_4 =
v_1 =	v_2 =	v_3 =	v_4 =

a_{12} = a_{23} = a_{34} =

Mathematical Analysis