

HW: 3.2 Kinematics

Name: Robert Feld

Class Period: A1

Date: 10/9/17

1.

Drawing:

Define Variables:

v_0 = initial velocity
(17 m/s)

d = displacement
(?) ($x_f - x_i$)

t = time
(3.9 s)

v_f = final velocity
(0 m/s)

$x_i = 0$

$x_f = ?$

Identify equations to be used:

$$d = \frac{1}{2} (v_f + v_0) t$$

Write in words how you are going to solve the problem:

Because I am assuming constant acceleration or average acceleration from braking I am going to use the equation above which is true for constant acceleration and solve for d the displacement d.

Symbolic Solution:

$$d = \frac{1}{2} (v_f + v_0) t$$

Check your units: $(m/s + m/s) s = (m)$

Answer:

33.15 m