1. Investigation: Atwood's Machine

   5 Days Late Today (N15)

2. ICA - C4, 5 and 10 -> Today, Nov. 15/13 -> Complete for HW

3. Review Sheets - Midterm Prep - Answers Review #2 +

4. Midterm Outline - See the Next Page

Physics 112/111 - Midterm Outline

-> ~~Resultant~~

-> Velocity-Time Graph ✓

-> Kinematic Problems Including Freely Falling Bodies

-> Force Problem C4 ✓

-> Force Problem C5 ✓ involve a kinematic formula.

-> Force Problem C10 ✓ involve a kinematic formula.

-> Momentum, Impulse, Momentum-Impulse Theorem ✓

FBDs.

$$\vec{p} = m\vec{v} \quad, \quad \vec{J} = \vec{F}t \quad, \quad \vec{F}t = \Delta\vec{p}$$

$$\vec{J} = \vec{F}t = \boxed{\Delta\vec{p}} = \vec{p_f} - \vec{p_i} = m\vec{v_f} - m\vec{v_i} = m\boxed{\Delta\vec{v}}$$
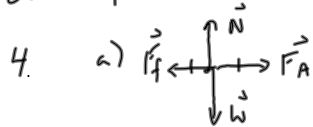
* Formula sheet will be provided.

* Format: Problems only (6)

Review #2 – Answers.

1. a) $0 \, kgm/s$
   b) $1.7 \, kgm/s$
   c) $6.7 \times 10^2 \, N$

*2. $\vec{a} = +3.54 \, m/s^2$

3. $\vec{v}_i = +849 \, m/s$

4. a)

   b) $\mu = 0.21$

5. (i) a) uniform motion
       b) uniform motion
       c) no motion

   (ii) south

   (iii) $t = 3s$ and $t = 10s$

6. $\vec{v}_i = 4.0 \, m/s$

7. $\vec{F}_A = 44 \, N$, right

8. $\vec{R} = 69 \, N$, $34°59'$ E of $56°$ E of S

9. $m = 65 \, kg$

10. $\mu = 0.53$

11. 1. $13 m/s$, S   5. $8.0s$
    2. $3.7 m/s^2$, N   6. $3.7 m/s^2$, S
    3. $7.5 m$, S
    4. $9.4 m/s$

Review Prob. for Midt.
8. $0.92s$

1

Attachments

Student ID re-takes 2013.doc