PHYSICS 5A – HOMEWORK SET 3

Due in class Wednesday, 10/09/02. Ten points per problem. Answers to the odd-numbered exercises are in the back of the book.

Reading: Young and Freedman, Chapter 4, and Chapter 5, sections 5.1-5.3.

1.) Problem 4.11

2.) Problem 4.22 (The acceleration is 0.452 m/s² downward).

3.) Problem 4.28 (Some answers: b) 5.0 m/s²; c) 20 N)

4.) Problem 4.34 (Some answers: a) 40.0 N; b) -2.45 m/s²)

5.) Problem 4.45

6.) Problem 4.47

7.) Problem 5.7

8.) Problem 5.15

9.) Problem 5.62 (Answers: a) \( \frac{Mg}{2 \sin \theta} \); b) \( \frac{Mg}{2 \tan \theta} \)

10.) Problem 5.80 (Answer: a) To the left; b) 0.658 m/s²; c) 424 N)

11.) Problem 5.81

12.) Problem 5.88 (Answers: a) 551 N; b) 3.6 m/s² downward)

13.) Problem 5.115