

NORTHERN ILLINOIS UNIVERSITY

PHYSICS DEPARTMENT

Physics 210 – Mechanics & Heat

Fall 2021

Problem Set #11

Problem Set Due: Thurs., Dec. 2, 2021 (late homework due date is Dec. 3, 11:59pm)

Read OpenStax: Chapter 15.1-15.4, 15.6, Lecture Notes #12

**Show explicitly all your work for full credit.**

**Staple solutions to Problems #1-12 together**

- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| 1. Expert TA: <b>20.5.1</b>       | <i>conceptual problem—explain</i> |
| 2. Expert TA: <b>20.5.4</b>       | show calculation and figure       |
| 3. Expert TA: <b>20.5.11</b>      | show calculation and figure       |
| 4. Expert TA: <b>20.6.5</b>       | show calculation and figure       |
| 5. Expert TA: <b>21.1.12</b>      | show calculation and figure       |
| 6. OpenStax: <b>Example 15.1</b>  | show figure and calculation       |
| 7. OpenStax: <b>Example 15.2</b>  | show figure and calculation       |
| 8. OpenStax: <b>Example 15.3</b>  | show figure and calculation       |
| 9. OpenStax: <b>Example 15.4</b>  | show figure and calculation       |
| 10. OpenStax: <b>Example 15.6</b> | show figure and calculation       |
| 11. OpenStax: <b>Example 15.7</b> | show figure and calculation       |
| 12. OpenStax: <b>Example 15.8</b> | show figure and calculation       |

**Number your solutions to these problems from 1 to 12.**