1. Related Rates Assignment

Because of the challenging nature of these problems, this assignment consists of a single problem.

- You should work on the problem as a group and coordinate your solution.
- Each group will be asked to present their solution, complete or otherwise, in class on the due date.
- The numerical value of the solution will be provided.
- I will manually enter the grades in eLearn. Every team member receives the same grade.
- Each group will be asked to hand in their solution in written form on the answer form provided. Please print the appropriate page of the answer form and use it. Sheets torn from spiral notebooks will not be accepted as they do not lend themselves to scanning.
- We will make any necessary corrections to the written solutions in class and solutions will be posted on eLearn by the end of the day.

1.1. **Group 1. Members:**

- Matt S
- Matt A
- Haley M
- Diana F

Problem: Section 3.9, problem 21

Solution:

$$\frac{720}{13} \approx 55.4 \quad \frac{\text{km}}{\text{hr}}$$

1.2. **Group 2. Members:**
- Noah D
- Justin G
- Julianne M
- Mirousse P
- Katie R

Problem: Section 3.9, problem 45

Solution:
$$\frac{7\sqrt{15}}{4} \approx 6.78 \quad \frac{\text{m}}{\text{sec}}$$

1.3. **Group 3. Members:**
- Hanna B
- George F
- Mike G
- Kerry H

Problem: Section 3.9, problem 27

Solution:
$$\frac{6}{5\pi} \approx 0.38 \quad \frac{\text{ft}}{\text{min}}$$

1.4. **Group 4. Members:**
- Ashley F
- Brian G
- Brittany L
- Alexandra M
- Tom S

Problem: Section 3.9, problem 25

Solution:

$$\frac{10}{3} \quad \frac{\text{cm}}{\text{min}}$$

1.5. Group 5. Members:
- Kaylie B
- Ashley G
- Brittany M
- Kate M
- Mike T

Problem: Section 3.9, problem 33

Solution:

$$80 \quad \frac{\text{cm}^3}{\text{min}}$$