Day 4 Homework (Tier 3)

Hospital Exam Room: This room is often the first “stop” upon entering the hospital. Even though patients enter this room in emergency situations, they are often in this room for hours, awaiting exams, tests, and decisions about possible admission. This can be a very scary time and the hospital would like to provide patients with the ability to change the color of this room if they find it is not relaxing and comforting. This change must be quick, easy, and efficient. Your new paint might be the perfect choice, but you will need to know more details before you can propose this to the hospital board!

This exam room only has one wall that can be painted, as the other walls are either covered in exam equipment or are made up of curtains. The hospital is requiring that each wall is initially given 2 coats of paint.

Summary:
Dye Choice ____________________________
Original Color ________________________
Change Color _________________________
Indicator Needed ______________________
Amount of Dye Needed _________________
Rationale: (show proportion or equation process)
   Hint: You are comparing the paper prototype/model to the real room
   Hint: The paper’s dye /area ratio = The wall’s dye/area ratio
Day 4 Homework (Tier 2)

**Hospital Exam Room:** This room is often the first “stop” upon entering the hospital. Even though patients enter this room in emergency situations, they are often in this room for hours, awaiting exams, tests, and decisions about possible admission. This can be a very scary time and the hospital would like to provide patients with the ability to change the color of this room if they find it is not relaxing and comforting. This change must be quick, easy, and efficient. Your new paint might be the perfect choice, but you will need to know more details before you can propose this to the hospital board!

This exam room only has three walls that can be painted, as the other walls are covered in exam equipment and are made up of a curtain. The hospital is requiring that each wall is initially given 2 coats of paint.

![Diagram of Hospital Exam Room](image)

Window with a base of 2 m and a height of 1 m

1.5 m x 2 m door

**Summary:**

- **Dye Choice**
- **Original Color**
- **Change Color**
- **Indicator Needed**
- **Amount of Dye Needed**

**Rationale:** (show proportion or equation process)

**Hint:** You are comparing the needed paint on the paper prototype/model to the needed paint for the real room
**Hospital Exam Room:** This room is “home away from home” while in the hospital for each patient. This can be a very scary time and the hospital would like to provide patients with the ability to change the color of this room if they find it is not relaxing and comforting. This change must be quick, easy, and efficient. Your new paint might be the perfect choice, but you will need to know more details before you can propose this to the hospital board!

This exam room has multiple walls that can be painted, as shown below. The hospital is requiring that each wall is initially given 2 coats of paint.

**Summary:**
- Dye Choice ____________________________
- Original Color ____________________________
- Change Color _____________________________
- Indicator Needed __________________________
- Amount of Dye Needed ________________________

Rationale: (show proportion process)