**Activity 31: The Dilution Equation**

***Learning Objectives***

*Use the dilution equation to prepare a dilute solution from a more concentrated stock solution*

**Estimated Completion Time** 45 Minutes

**Instructor Information**

Students should also be able to explain how they would prepare solutions versus merely arriving at a numerical answer.

**ANSWERS TO QUESTIONS**

1. a. 12.5% (m/v) b. 3.13% (m/v)

2. 0.3% (m/v)

3. Dilute 100 mL of the 25% stock solution to a final volume of 500 mL to produce 500 mL of the 5% solution.

**Activity 31: Skill Development**

1. 20 mL of the diluted solution

2. 6 L

3. 10 L

4. 3 % (m/v)