# Determination of Ideal Gas Law Constant

Student Name

Date

## Data

### **Activity 1**

**Data Table 1**

|  | **Trial 1** | **Trial 2** | **Trial 3** | **Trial 4** | **Trial 5** | **Trial 6** | **Trial 7** | **Trial 8** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Air temperature |  |  |  |  |  |  |  |  |
| Volume H2O2 liquid (mL) |  |  |  |  |  |  |  |  |
| Initial Volume Gas (mL) |  |  |  |  |  |  |  |  |
| Final Volume Gas (mL) |  |  |  |  |  |  |  |  |
| ΔV (mL) |  |  |  |  |  |  |  |  |

1. Would the volume of oxygen that is generated by affected if a smaller mass of yeast were used? Why or why not?

## Activity 2

**Data Table 2**

|  |  |
| --- | --- |
| Concentration H2O2 |  |

|  | **Trial 1** | **Trial 2** | **Trial 3** | **Trial 4** | **Trial 5** | **Trial 6** | **Trial 7** | **Trial 8** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Moles H2O2 |  |  |  |  |  |  |  |  |
| Moles O2 |  |  |  |  |  |  |  |  |
| ΔV (L) |  |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| Air Temperature (K) |  |
| Air Pressure (atm) |  |
| Equation of the Line |  |
| Gas Constant R |  |
| Percent Error |  |

1. Identify at least two potential sources of error in the experiment. Are any assumptions made that would add to the experimental error?