**Post-Activity Quiz**

**Answer the following quiz questions:**

1. **If you took a pendulum from Earth (g = 9.8 m/s2) to Mars (g = 3.77 m/s2), how would that affect the period of the pendulum? Show your work.**
2. **What do the units of this equation represent? In particular, what does the squaring of the period allow you to calculate?**

**Complete the following performance assessment:**

1. **Using the following data, calculate the acceleration due to gravity on two unknown planets.
(Note: Error has been introduced in the data to simulate actual data, so find the average or a best fit.)**

**Planet 1:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Length (m)** | **0.20** | **0.50** | **0.65** | **0.82** | **1.00** |
| **Period (s)** | **1.45** | **2.31** | **2.59** | **2.92** | **3.23** |
|  |  |  |  |  |  |

**Planet 2:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Length (m)** | **0.20** | **0.50** | **0.65** | **0.82** | **1.00** |
| **Period (s)** | **0.85** | **1.34** | **1.52** | **1.71** | **1.88** |
|  |  |  |  |  |  |