Modified Atwood's (32 pts)

Predictions - 1 pt

Graph of gravitational force vs. acceleration - 3 pts

Axes labels and units - 1 pt

Regression line - 1 pt

Slope and units of $N/(m/s^2)$ - 2 pts

3. kg - 1 pt

4. The system mass - 1 pt

5. If the net force on the system equals the mass of the system times its acceleration, the slope of force / acceleration is the system mass - 1 pt

Graph of acceleration versus system mass - 3 pts

Axes labels and units - 1 pt

Regression curve - 1 pt

Graph of acceleration vs 1/mass - 3 pts

Axes labels and units - 1 pt

Regression line - 1 pt

Slope with units of $kg\text{-}m/s^2$ - 2 pts

9. N - 1 pt

10. The force of gravity on the hanging mass - 1 pt

11. If net force equals mass times acceleration, the force of gravity equals the system mass times the system acceleration - 1 pt

12. The slope would be higher. The slope is the mass -or- a lesser acceleration would create a higher slope - 2 pts

13. The slope would stay the same. The slope is the mass -or- both the force and the acceleration would decrease proportionally - 2 pts

14. The slope would decrease. A lesser force would produce a lesser acceleration per mass - 2 pts