

Friction analysis (25 pts)

Graph of kinetic friction vs normal force - 4 pts

Graph title - 1 pt

Axes labels and units - 1 pt

Regression line - 1 pt

Slope of the line - 1 pt

6a. For every 1 N of normal force there are ... N of kinetic friction - 1 pt

6b. The slope would decrease. There would be less kinetic friction per normal force - 2 pts

6c. An example of two surfaces with a high coefficient (i.e. concrete and rubber) – 1 pt

6d. An example of two surfaces with a low coefficient (i.e. silk and teflon) – 1 pt

Graph of static friction vs normal force - 4 pts

Graph title - 1 pt

Axes labels and units - 1 pt

Regression line - 1 pt

Slope of the line - 1 pt

5a. For every 1 N of normal force there are ... N of kinetic friction - 1 pt

5b. If the static friction graph has a higher slope, it is more difficult to begin something sliding. If the kinetic friction graph has a higher slope, it is more difficult to keep something sliding.
- 2 pts

5c. An example of static friction causing acceleration - 1 pt