1a. The median is defined as a value such that half the observations are above and half are below. Report the mean and median values of the following quantity (don't forget units).

E = [45   60   40   5   50] Joules   *mean*(E) = _____

                                                median(E) = _____

1b. State which is greater (mean or median) _____

1c. Explain why.

2. Name a quantity of interest to you that has dimensions of V/T (= L^3/T). In the spaces below provide a complete five-part definition of the quantity (name, symbol, procedural statement, numbers, units).

| | | TYPICAL | |
| NAME | SYMBOL | VALUES | SCALE (typical units) |

Procedural statement (you may have to invent this)

$$sum(X) = \sum_{i=1}^{n} X_i = X_1 + X_2 + \cdots + X_n \qquad \text{n is number of observations (it has no units)}$$

$$mean(X) = \bar{X} = \frac{1}{n}\sum^{n} X \qquad\qquad variance(X) = s^2 = \frac{1}{n-1}\sum \left((X-\bar{X})\right)^2$$

coefficient of dispersion $cd(X) = \dfrac{variance(X)}{mean(X)}$

3. Substitute the symbol for your quantity within the parentheses in the following expressions, and fill in the blanks.

sum(   ) has units of _____

mean(   ) has units of _____

cd(   ) has units of _____