1. Which of the following are functions? Explain your answer.

   (a) Number of new people you meet, as a function of day

   (b) Dining halls that are open, as a function of time

   (c) The course number of the lecture that you are attending, as a function of time

   (d) Distance from home, as a function of time

2. Graphs are a great way to visualize functions. Let's plot some graphs!

   (a) Let $f(t)$ be your distance from your home, as a function of time. Graph $f(t)$ during your commute to school this morning. Make sure to label your drawing!

   (b) Let $g(t)$ be the same function, except that you're in an alternate universe where you decided to leave your home an hour earlier. Graph $g(t)$.

   (c) Let $h(t)$ be the same function, except that you're in an alternate universe where you took the bus instead of walking (or, you walked instead of taking the bus). Graph $h(t)$ and explain the differences between this graph and the graph of $f(t)$.

   (d) Can you express g in terms of f?