## Written Homework \#4

Due on Friday 27 Feb 2009 at the beginning of lecture.
Write down your name and student ID number.
While visiting England, you decide to take a jog and find yourself in the neighborhood town shown in the map below.

a. What is your displacement after running 3.0 km on Strawberry Fields, 1.0 km on Penny Lane, and 4.0 km on Abbey Road?
b. Draw a graph showing the three consecutive displacement vectors and their sum (the total displacement vector). Use the $x$ axis to represent Strawberry Fields and the $y$ axis to represent Penny Lane. Be sure to label the axes.
c. Calculate the angle between the total displacement vector and the $x$ axis.

Show your work to get full credit.

