## 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.