Programming Assignment 5

DUE at the starting of the class on 10/8/2008 (Wednesday)

[Exercise P5.7] Write functions

    double sphere_volume(double r);

    double sphere_surface (double r);

    double cylinder_volume (double r, double h);

    double cylinder_ surface (double r, double h);

    double cone _ volume (double r, double h);

    double cone_ surface (double r, double h);

that computes the volume and surface area of a sphere with radius r, a cylinder with a circular base with radius r and height h, and a cone with a circular base with radius r and height h. Then write a program that prompts the user for the values of r and h, calls six functions, and prints the results.

[Exercise P5.2] Write a procedure void sort2(int& a, int& b)that swaps the values of a and b if a is greater than b and otherwise leaves a and b unchanged. For example
    int u = 2;
    int v = 3;;
    int w = 4;
    int x = 1;
    sort2 (u, v); // u is still 2, v is still 3
    sort2 (w, x); // w is still 1, x is still 4