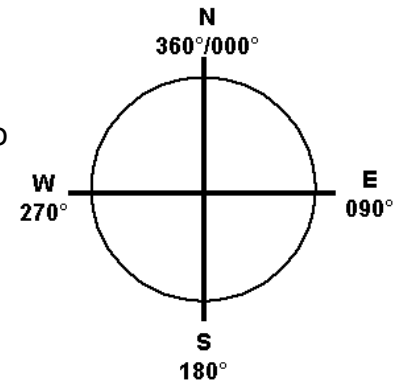**Problem Statement # 1**

One way of giving a direction is to simply use one of the letters N, E, S, or W, indicating the nearest compass point. Another way is to give a bearing as a number from 0 to 359 (since 360 would be back to 0 again). A bearing of 0 corresponds to N, a bearing of 90 corresponds to E, and so on.

Write a program that prompts the user for a bearing from 0 to 359 and prints the corresponding letter of he compass point nearest to the bearing. Bearings exactly halfway between two compass points should produce either N or S (never E or W).

For example:
- input of 73 is between N and E, but it is closer to E, so the program should output E.
- input of 45 is exactly halfway between N and E, so the program should output N.

Problem Statement # 2

Write a program to compute an employee's weekly pay and produce a pay slip showing name, gross pay (i.e., pay before deductions), deductions, and net pay (i.e., pay after deductions).

The program should first prompt the user for:

(a) family (last) name

(b) given (first) name

(c) hourly rate of pay

(d) number of hours worked that week (any hours over 40 are paid at double the normal rate)

(e) a letter indicating the employee's tax category

    A: no tax deduction

    B: tax is 10% of gross pay

    C: tax is 20% of gross pay

    D: tax is 29% of gross pay

    E: tax is 35% of gross pay

(f) either a 'Y' or an 'N' to indicate whether or not the employee wants $20 deducted from the weekly pay as a contribution to the United Way Charity