Robbie’s Po-Boy Adventure Algorithm

ALGORITHM (Po-Boy) {

! This algorithm describes what Robbie must do to fetch po-boy sandwiches
! for each of his nine friends, according to the instructions and
! limitations given in the original problem statement.

REPEAT (9) {

! Make nine trips to fetch po-boys;
! could be ten if Robbie eats as well.

! This manages the trip from the house to the restaurant:

NORTH;

IF LEGAL(EAST) {

! If legal, just go east to AOH

EAST;

};
ELSE {

NORTH;

EAST;

EAST;

SOUTH;

WEST;

};

! Get po-boy at Acme Oyster House.

! This manages the trip from the restaurant to the house:

IF LEGAL(WEST) {

! If legal, just go west to A street

WEST;

WEST;

SOUTH;

};
ELSE {

EAST;

SOUTH;

WEST;

WEST;

NORTH;

};

};

};

! End of REPEAT

};

! End of ALGORITHM
Grading Instructions (8TTh and 10MWF sections only)

The maximum score should be 60 points. Divide points as follows:

20 points for correctly designing the trip from the house to the restaurant
   Deduct at least half if they don’t correctly take into account the one-way streets.

15 points for correctly designing the trip from the restaurant to the house
   Deduct at least half if they don’t recheck the direction of 2nd street when leaving the restaurant.

10 points for correctly iterating to achieve either 9 or 10 trips.

10 points for using the specified notation and syntax
   Don’t be picky on capitalization or use of semicolons as long as the meaning is clear.
   Do take off points for using unspecified commands, such as `while`.

5 points for adequate comments
   There should be a header description plus some reasonable block comments.

You should give reasonable partial credit. Use my solution as a guide; of course the student may have some variation, such as using REPEAT where I have simple repeated a single directional command.

If you take off points, write a short comment explaining why. For example: “must check direction here” or “must go north to house”.