

## 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;

! Go to corner of A and 2nd

IF LEGAL(EAST) {

! If legal, just go east to AOH
EAST;
EAST;
};
ELSE {

! Otherwise, go around to other end
! of 2nd street and head back west.
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;

! and then south to the house.
};
ELSE {

! Otherwise, go around to get to A
! street,
EAST;
SOUTH;
WEST;
WEST;
NORTH;

! and then north to the house.
};
};

! 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 simply 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".