

Turtle Tuesdays Challenge for July 2026

MYSTERY MANSION

Step 8: How to end the adventure

The player will want a tidy conclusion to the adventure. Will they find something magical? Will they have all the required items in their inventory and visit the right room to claim a prize? Will they need to have visited all the rooms?

You (and your adventure buddy) can figure this out.

Here is a handy procedure to know if they have visited all the rooms. It outputs `TRUE` if all the rooms have been explored, and `FALSE` if the rooms haven't all been explored. It doesn't say which rooms have gone unexplored, although you could tell them.

```
TO EXPLORED_ALL_ROOMS :ROOMS
  IF EMPTY? :ROOMS OUTPUT TRUE
  IF NOT GPROP FIRST :ROOMS "EXPLORED OUTPUT FALSE
  EXPLORED_ALL_ROOMS BF :ROOMS
END
```

Use it with an instruction like this:

```
IF EXPLORED_ALL_ROOMS :ROOMS [PRINT [YOU HAVE EXPLORED ALL THE ROOMS.]] [PRINT
[YOU STILL HAVE ROOMS TO EXPLORE. GO FIND THEM!]]
```

Here's another way to check if all the rooms have been explored. It is very concise, and uses a command you probably haven't tried before. The `FOREACH` command goes through a list you give it (`:ROOMS` in this case) and applies the same instruction to each item in the list. The `"?` refers to the current item in the list. The use of `NOT GPROP "?" "EXPLORED` detects if the room has not been explored, and the procedure returns a `FALSE` value. It doesn't need to continue processing the rest of the rooms, because it had to find one room that hadn't been explored.

```
TO EXPLORED_ALL_ROOMS
  FOREACH :ROOMS [IF NOT GPROP "?" "EXPLORED THEN OUTPUT FALSE]
  OUTPUT TRUE
END
```

A sample conclusion to the adventure might be:

```
TO WIN?
OUTPUT EXPLORED_ALL_ROOMS :ROOMS AND MEMBER? "MAP :INVENTORY AND :ROOM = "LIBRARY
END
```

The `WIN?` procedure outputs `TRUE` if the player has visited all the rooms, `AND` has the map, `AND` is in the Library. We'll leave it to you to figure out how and where to use this procedure after you edit it to match the adventure you have created. Or design an entirely different set of conditions for ending the game.

One final note: Have you heard of an Easter Egg in programming? This isn't the type of egg you dye at Easter. It is code hidden in a program that might do something fun if the player discovers it by accident. Add one if you like!

You have likely learned enough and have the tools at hand to finish your adventure.
Good luck finishing it!

We hope you have enjoyed your coding adventure. If you have gotten to the end, *congratulations!*