CAT & MOUSE

http://scratch.mit.edu/projects/30428582/#editor

In this game, you are a mouse who needs to get through a maze to get to the cheese. Don't get caught by the cat though!

The program you are given has a blank white background. There are three sprites: the mouse, a cat, and some cheese.

Finished game: http://scratch.mit.edu/projects/30373584/

#1. THE MOUSE // EASY

Let's start by writing a program to make the mouse move. We'll control the mouse by having it chase after the mouse pointer. You can have the mouse face the pointer with this block `point towards mouse pointer` and move around with this block `move 10 steps`.

Can you now get the mouse to move around the screen?
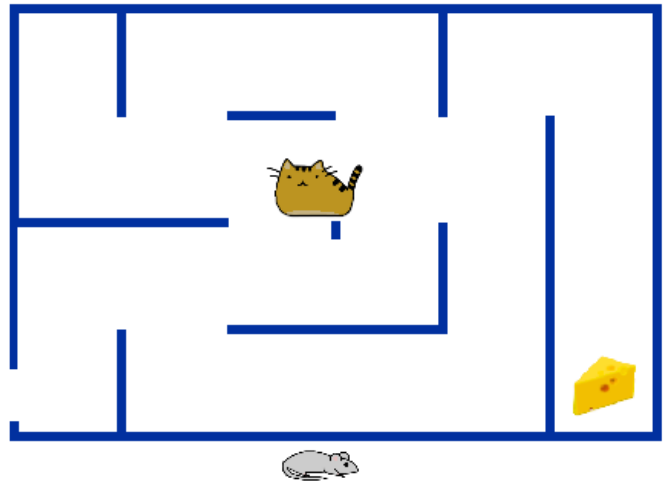
#2. CHEESE // EASY

The mouse should be able to eat the cheese. You can make the cheese disappear with this block: `hide`. To make it disappear when the mouse touches it, you can combine these blocks:

`forever`, `if ⬤ then` and `touching mouse`

Remeber to make the cheese appear again! You can do that with the `when ⚑ clicked` and `show`.

#3. THE CAT // MEDIUM

Now its time to add some Script for the cat. Click on the cat sprite and use the `move 10 steps` and `forever` to make the cat move.

You can use the `if on edge bounce` to make the cat move in the other direction once it reaches the edge.

#4. CAUGHT! // MEDIUM

Now we need something to happen when the cat catches the mouse! The `touching cat ▼` can help with that. To make the game stop, we can use `stop all ▼` block.

#5. THE WALLS // MEDIUM

Let's make the game more complicated by adding a maze. Click on the **"Stage" icon** and change the backdrop to the maze backdrop. There's a problem though. The mouse can run through the walls!

You can check if you're touching a wall using `touching color ■`. *If* you are, try moving the cat backwards! Now try doing the same with the mouse.

#6. WALKING THE MAZE // MEDIUM

We want the cat to be smarter and walk around the maze. Instead of just bouncing off of the edge, you can make the cat turn using the `turn ↻ 90 degrees`.
Try using the numbers 90, 180, or 270.
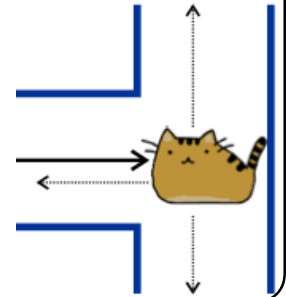
TRY IT: LESS JUMPY // MEDIUM

When the mouse gets near the mouse pointer, it starts moving back and forth. This happens because when it moves toward the mouse pointer, it goes too far and ends up on the other side of the mouse pointer. Then it turns around and moves again, going back to the start. Can you stop this from happening?