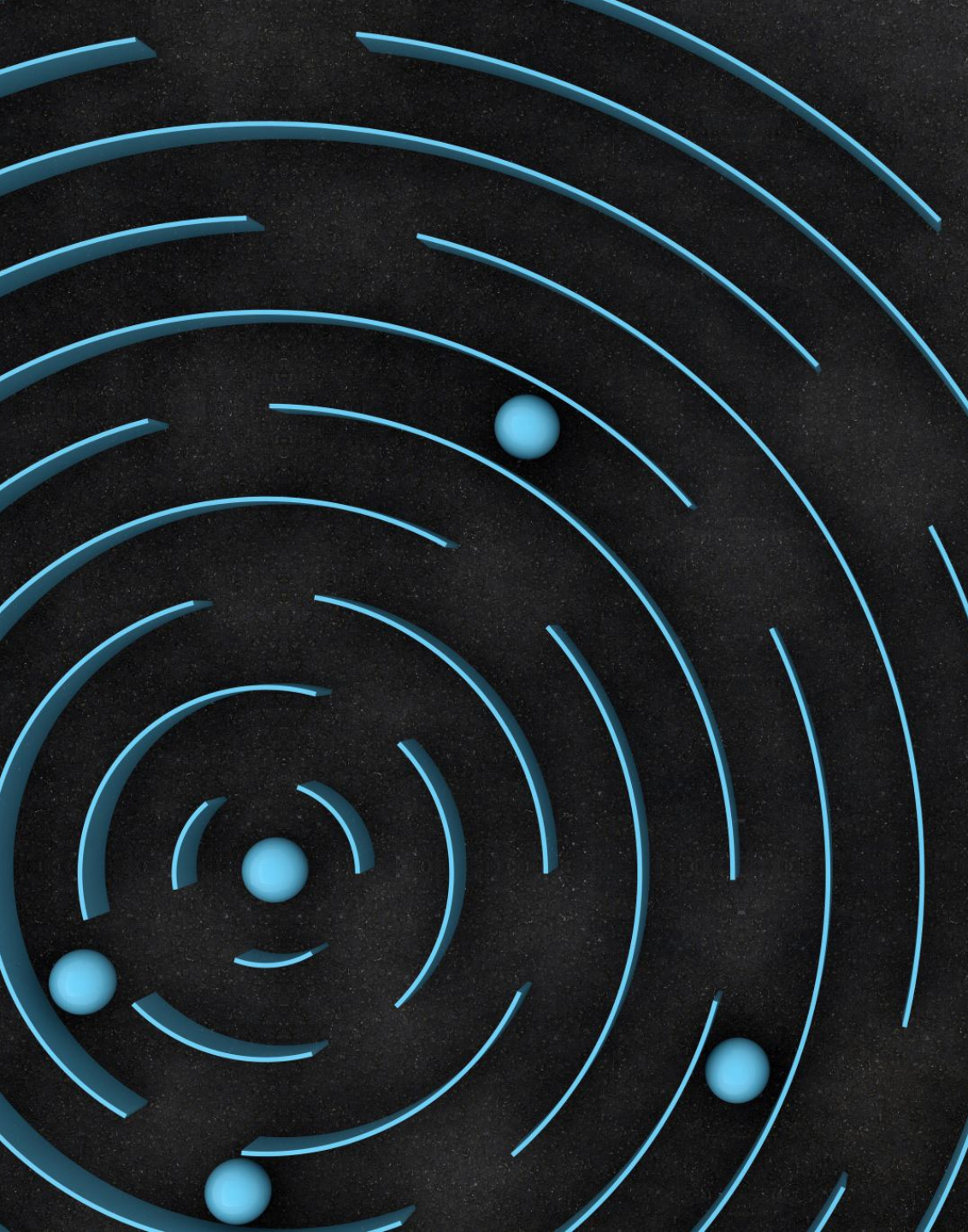




Movement - Easing

- What is Easing?
- Coding Easing
- Practice Problem

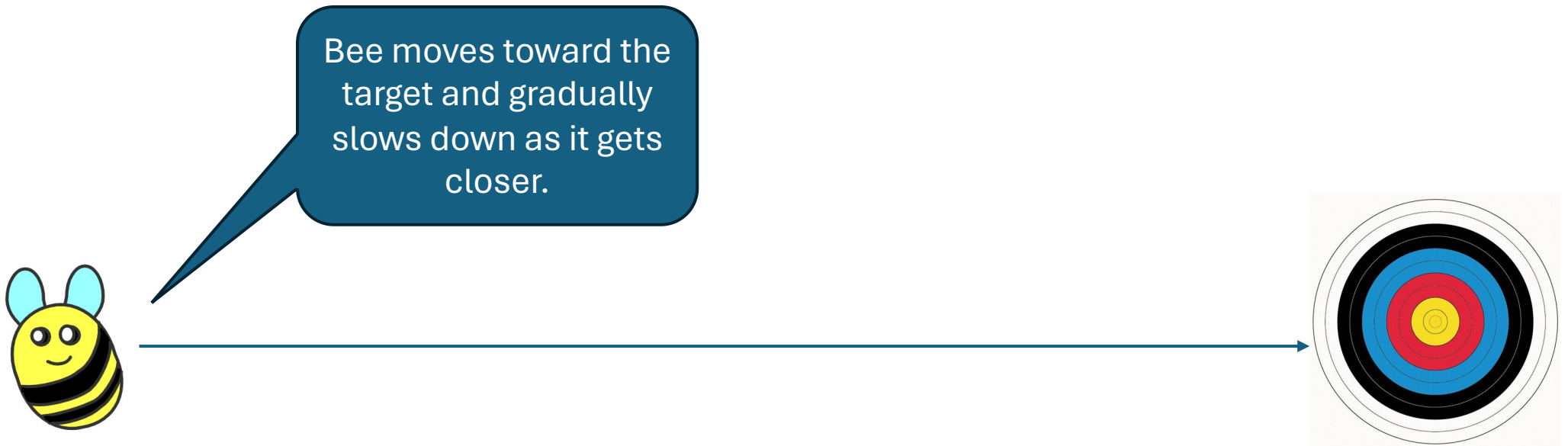


What is Easing?

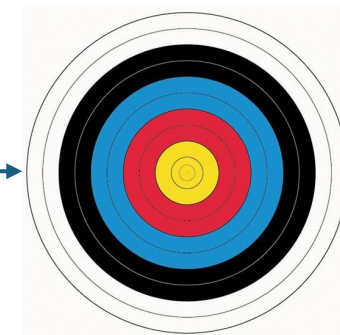
- Game programmers use the term “Easing” to describe how a movement starts and stops.
- When moving toward a target you gradually slow down before coming to a complete stop.
- Moving at a fixed velocity and suddenly stopping is not easing.
- Animators use easing to make game objects' movements look natural and smooth.

JavaScript coding for Easing

- Easing motion means the velocity is not constant.
- The goal of “easing” code is to compute a location of a moving object during a given time, from a starting location to an end location.



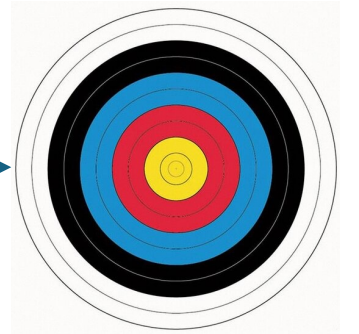
Bee Location at Given Times



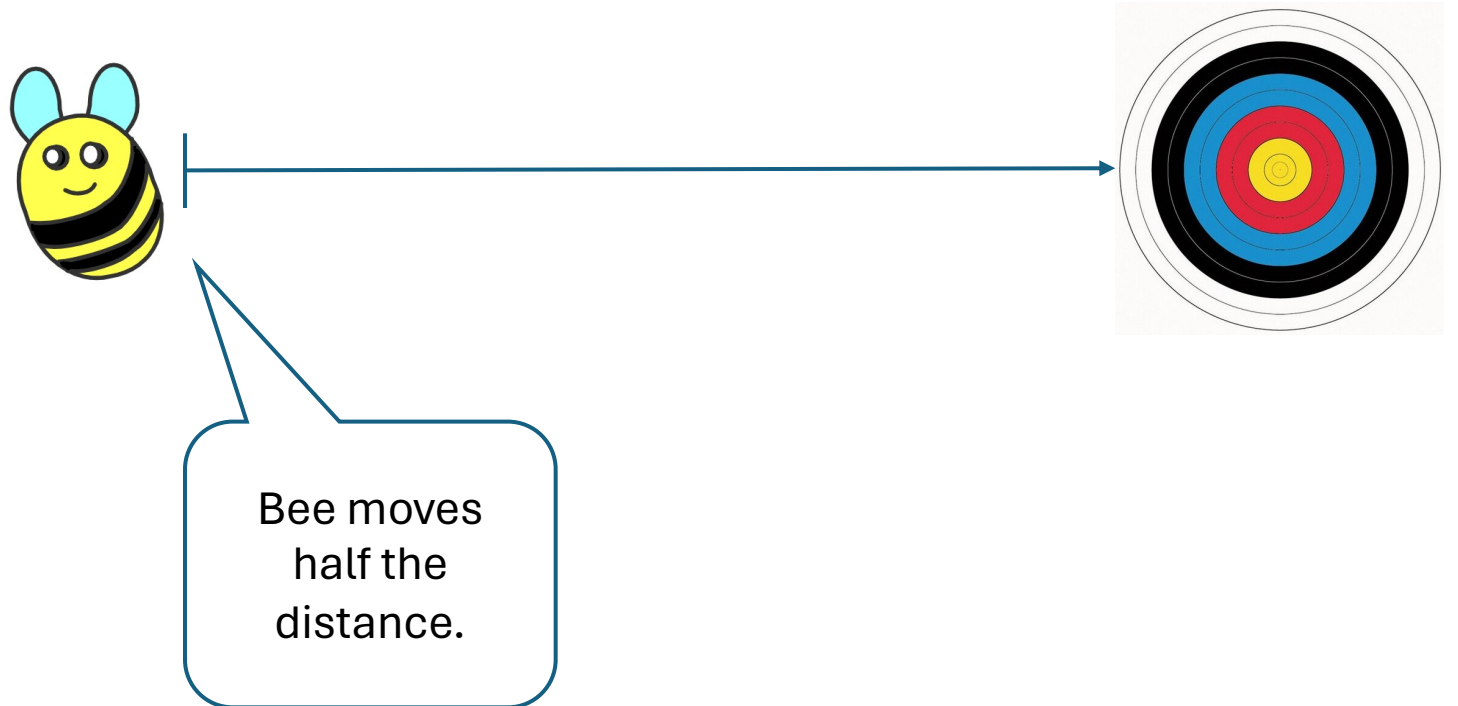
Bee Location at Given Times



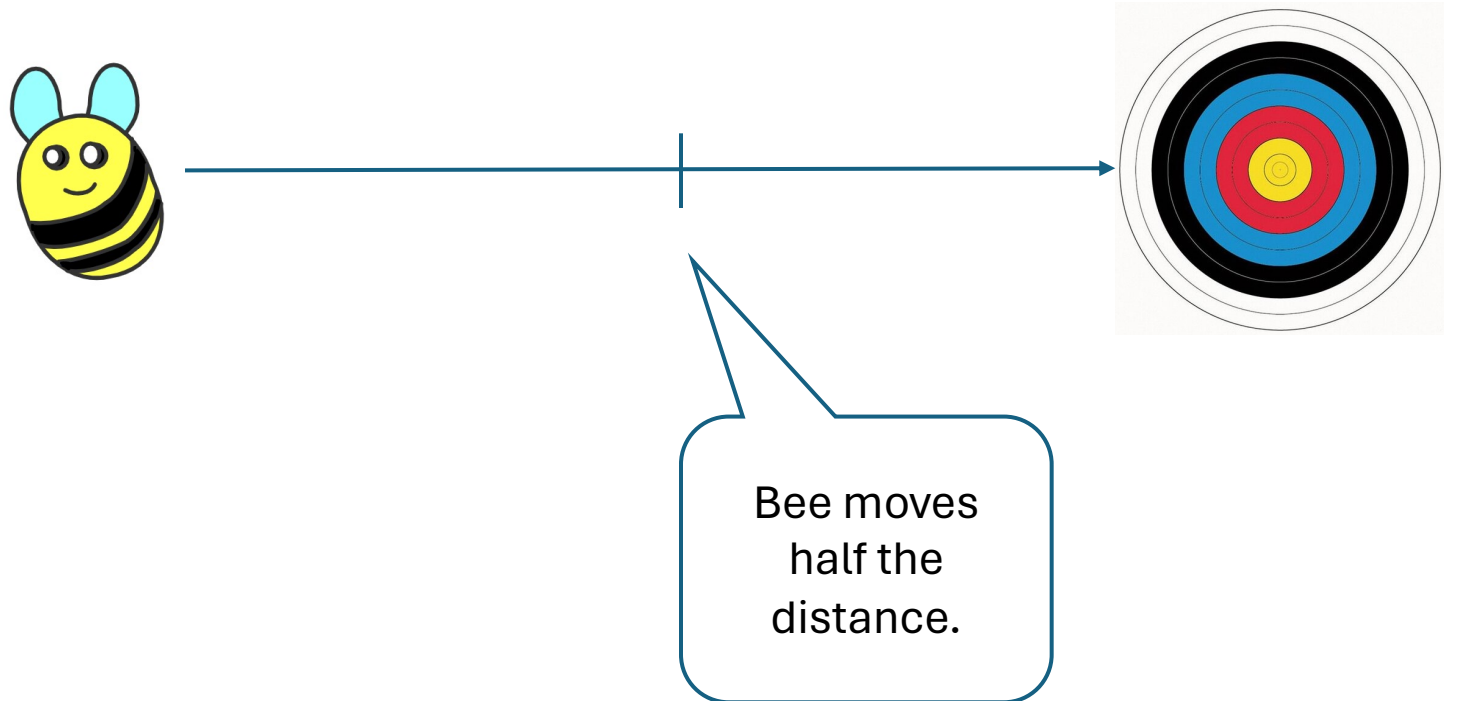
Bee moves
half the
distance.



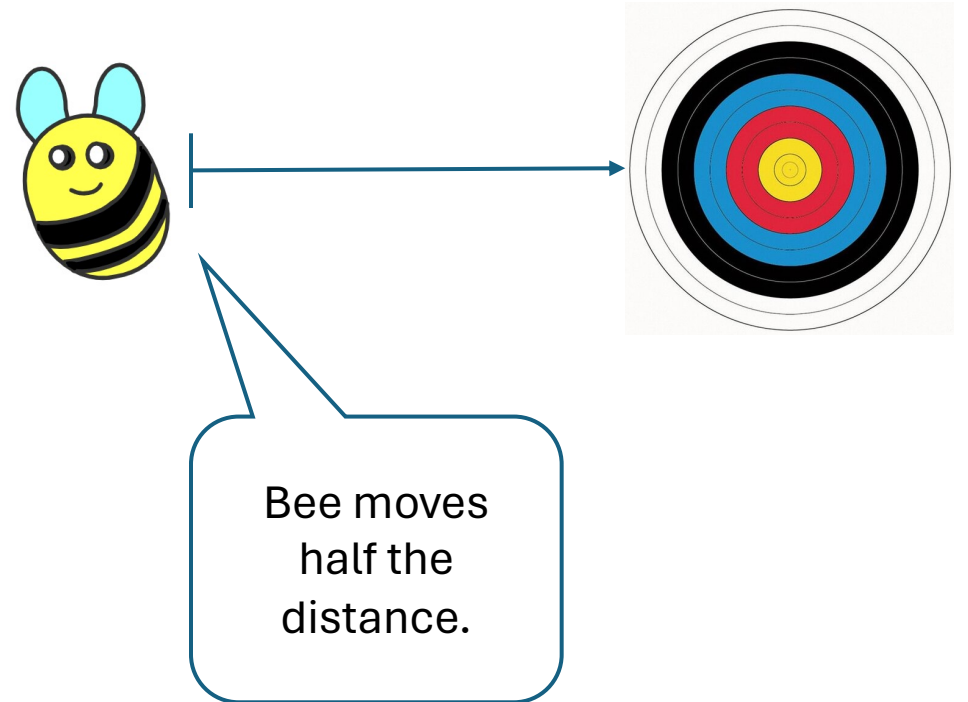
Bee Location at Given Times



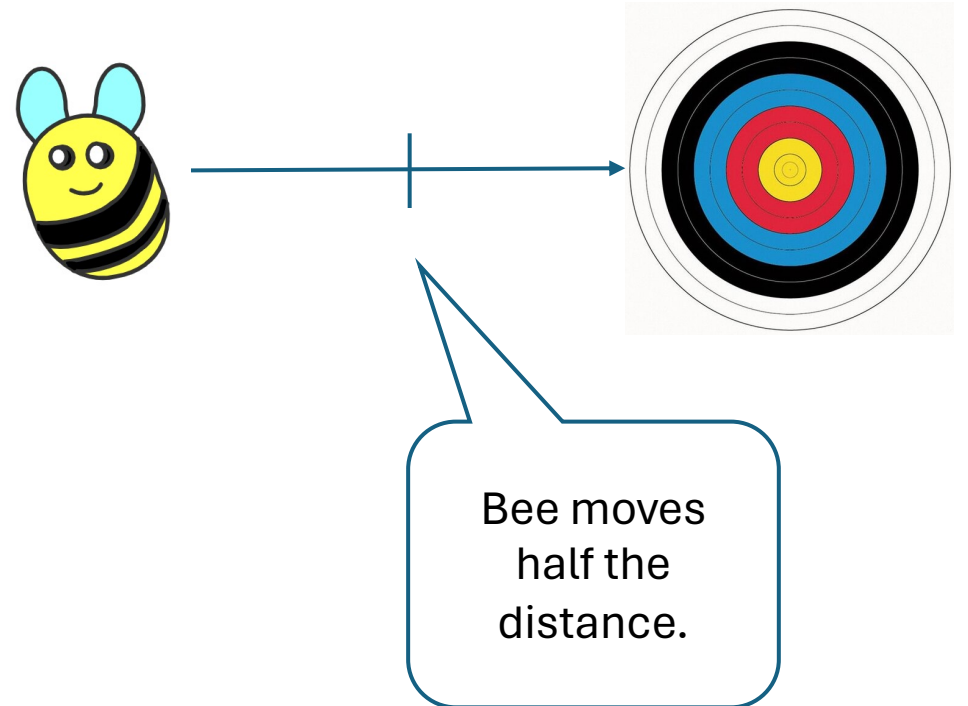
Bee Location at Given Times



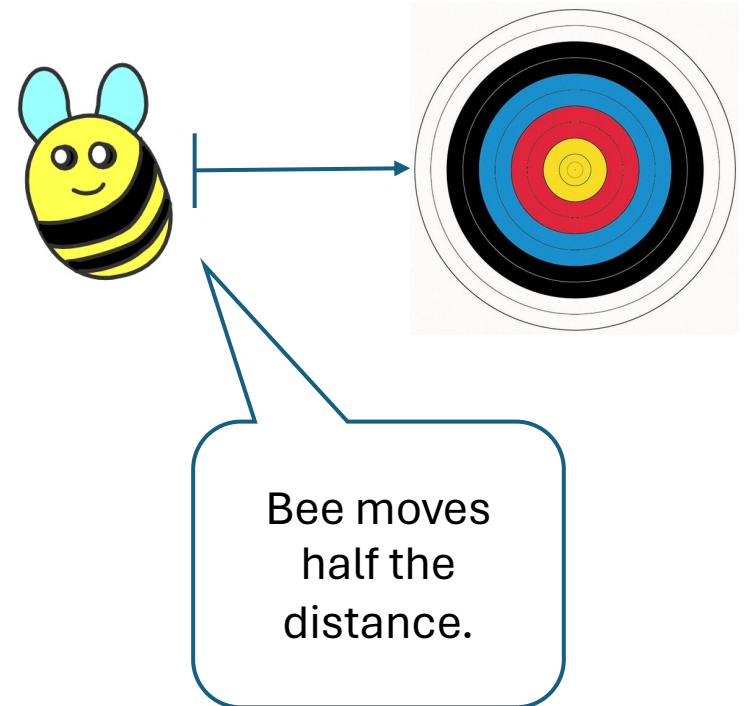
Bee Location at Given Times



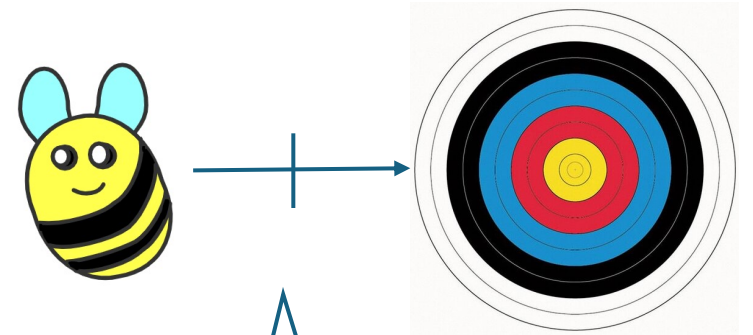
Bee Location at Given Times



Bee Location at Given Times

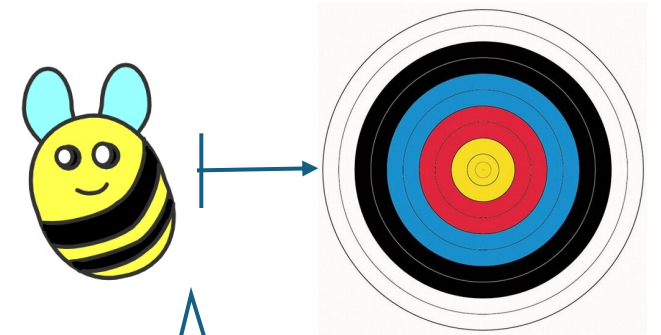


Bee Location at Given Times



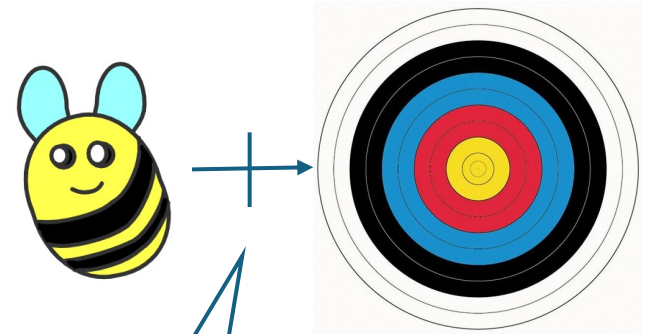
Bee moves half the distance.

Bee Location at Given Times



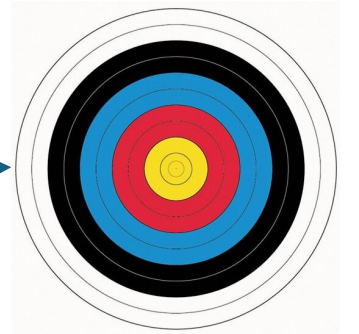
Bee moves half the distance.

Bee Location at Given Times



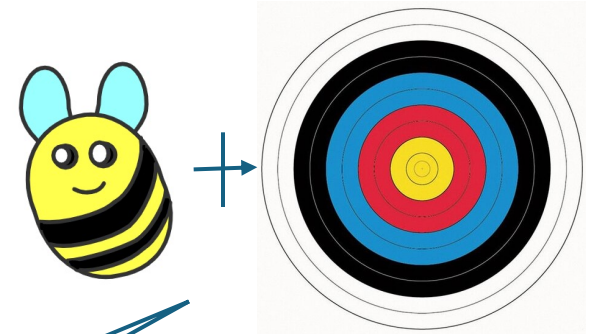
Bee moves half the distance.

Bee Location at Given Times



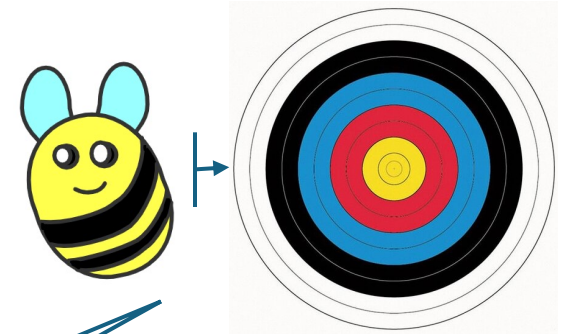
Bee moves half the distance.

Bee Location at Given Times



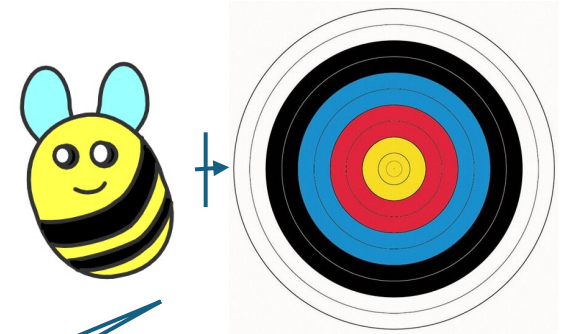
Bee moves half the distance.

Bee Location at Given Times



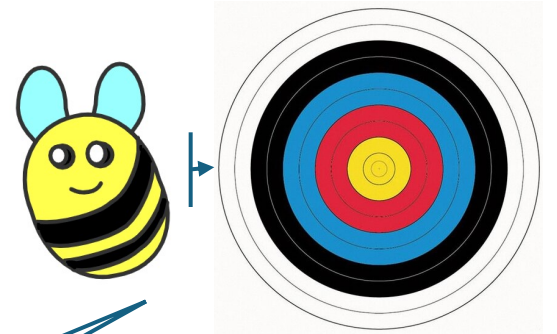
Bee moves half the distance.

Bee Location at Given Times



Bee moves half the distance.

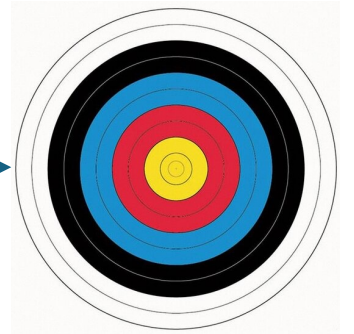
Bee Location at Given Times



Bee moves half the distance.

Bee Easing

Compute the
distance at
each game
loop.

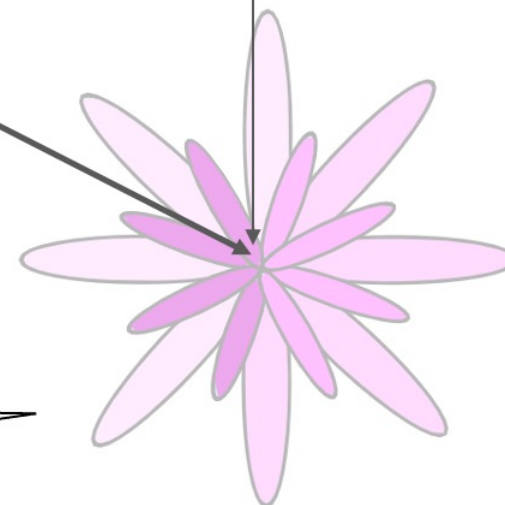


Practice

Bee object eases toward the flower object.



Compute the distance to the flower object.

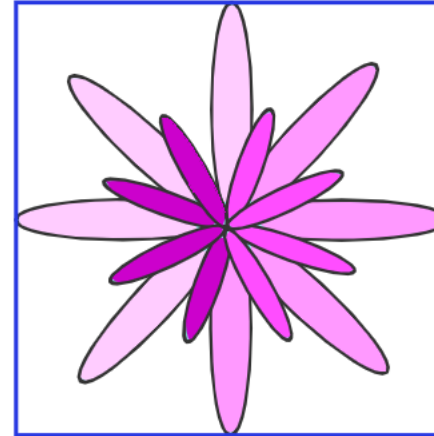


Flower object is "dragged" by the user.

Preliminary Task #1



Construct a Bee object that flies toward the user's position on the screen. Use an easing movement.

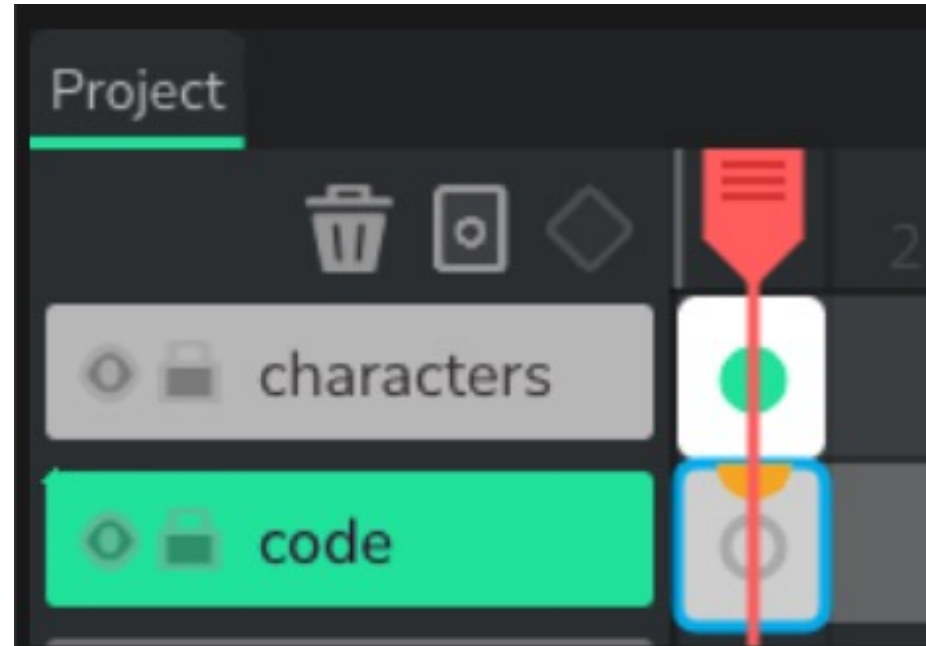


Construct a Flower object that can be moved using the mouse.

Preliminary Task #2

Bee and Flower objects.

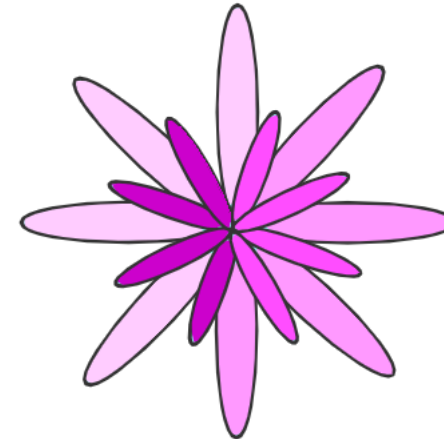
All game code will be in frame 1.



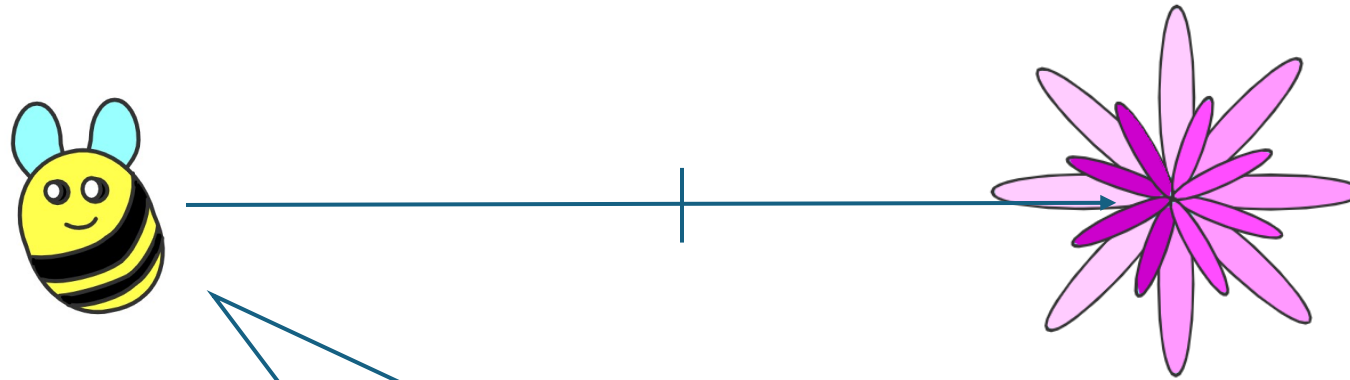
Task #3: Code the movement of the Flower

Follows the mouse
movement.

Thoroughly test!



Task #4: Code the movement of the Bee



Compute the distance from the bee to the flower, on both x and y.
Move the Bee half the distance.
Alter the amount of the divisor.