## Recap

- lists
- higher-order-functions
- map
- keep items such that
- combine with

### Recursion

 Recursion – when a block (or function) calls itself)

```
+ Draw + Square + × +

repeat 4

move × × 20 steps

turn 90 degrees

wait 1 secs

Draw Square × - 1
```

### Recursion

 But this block repeats forever...we need something to stop it eventually

```
+ Draw + Square + x +

repeat 4

move x x 20 steps

turn 90 degrees

wait 1 secs

Draw Square x - 1
```

```
+ Draw + Square + 💌 +
  not (x) = 0
repeat 4
 move X x 20
                  steps
 turn 👌 90 degrees
 wait 1 secs
Draw Square
```

## Lab 7

- Create 2 blocks recursively:
  - Recursive Tree
  - Recursive Snowflake
  - (extra credit) C-Curve

## Tree Block

You are provided with several tree blocks

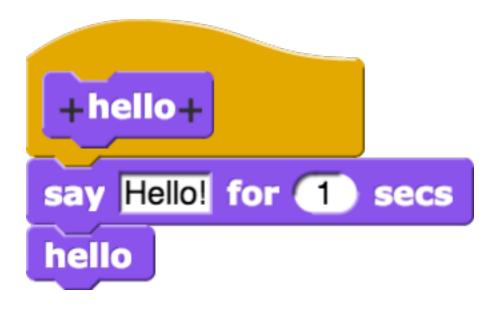
## Snowflake Block

 You are provided with one block, you will be filling in the blanks

### C-curve Block

- Optional
- Worth 3 extra points toward your overall assignment average

#### For how many seconds does this say "Hello!"?

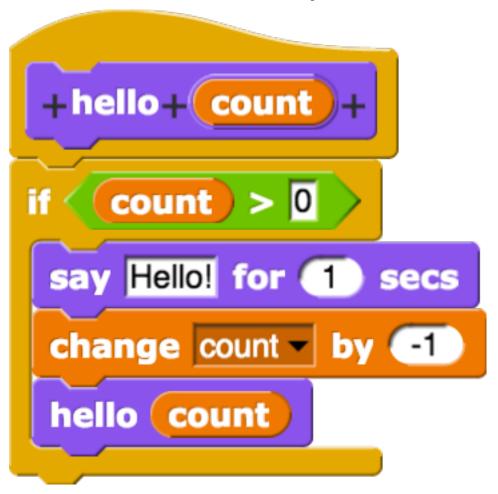


- A. 0
- B. 1
- C. forever

#### For how many seconds does this say "Hello!"?



- A. 1
- B. 2
- C. 3
- D. 4
- E. forever



# What is printed by this block?

```
mystery 4
```

```
+mystery + x +

If x > 1

report x x mystery x - 1

else

report 1
```

A. 12

B. 16

C. 20

D. 24