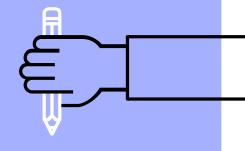


### Do Now (5 mins)

Let's review!

What are the different variable types we discussed yesterday?





## Objectives

Review conditionals in relation to variables



### Conditionals

We loosely call these "if statements". They are used to make sure a requirement must be met before something happens, like "if I want to make a sandwich, I should wash my hands first". In code, this is much stricter(since you don't necessarily have to wash your hands before making a sandwich).



# Any real world examples you can think of?



### Conditional Statement Format

```
if (condition) {
    then do this;
} else if (another condition) {
    do this instead;
} else {
    do this;
```

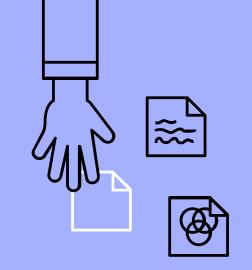
else entails anything not mentioned in other if statements



# Review operators

We are used to seeing these symbols in math. In coding they are used in a similar way.

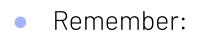
- + add subtract
- \* multiply / divide
- \*\* exponent
- == is equal to
- > greater than
- < less than
- <= greater/equal to
- >= less/equal to
- ≠(in code, we use != for 
  "not equal to)





## The comparison operator

Remember that a single equals sign is used to assign or store data values. To use them in conditional statements, you must use the double equals sign, which compares data to check if the statement is true.



- = assign
- == check if it's equal to something



In this and other examples, we're checking to see if the statement is true or false. If false, it will move on to the next if statement(s) or execute the else.

### **Using math:**

```
if(x == 5){
```

The number 5 is represented as x;

} <u>else if</u> (x<5){

The number is less than 5;

} <u>else</u>

???

}



# Let's look at some conditional statements

#### **Using code:**

```
if(x == 5){
    Do something;
<u>}else if</u> (x<5){
    Do something else;
} <u>else</u> {
    Do another thing
```



# Let's look at some conditional statements

#### Using code:

```
if(time == 8:00am){
    Sound or snooze the alarm;
} <u>else if</u> (time== 8:15am){
    Sound the snooze alarm;
} <u>else</u> {
    Do nothing;
```



### Let's look at some conditional statements

#### Using code:

```
if (I click this button){
    Do something;
} <u>else</u> {
    Do nothing;
```

These conditional statements help computers make decisions based on things like user input!



### Student Activity: Let's look at some code!

