

# COMPARING APPLES AND ORANGES

**Getting Back in Control**

# YOU KNOW WHAT'S COMING



KAHOOT





# TRY NOW!

Make a program that outputs the price of bananas.

1. Ask the user how many bananas they want
  2. 5 or less bananas cost 50 cents each, 5 to 10 cost 35 cents each, 10 or more cost 25 cents each
  3. Output how much the customer's order will cost
-

## STRINGS ARE HARD...



- What if you want to get the type of fruit the user wants?
  - Apple, banana, pineapple
- How do you represent apple vs. banana?



## REMEMBER THAT STRINGS ARE COMPLEX

- A String is actually a bunch of `char`(acters) concatenated together
- So to compare Strings, you actually need to compare each character inside



# COMPARING APPLES AND ORANGES

**A**

**P**

**P**

**L**

**E**

**S**

**O**

**R**

**A**

**N**

**G**

**E**

**S**



# COMPARING APPLES AND ORANGES

- Lucky for us, Java gives us a way to do this quickly and easily

```
String name = "Andrew";  
  
if ( name.equals("Andrew") ){  
    System.out.println("You're a cool guy!");  
}
```

# BOOLEANS AND LOGICAL OPERATORS

`&&` - and

`||` - or

- Two things that you'll find very useful are **logical operators**
- If I want to check if two different conditions are true, I use **and**
- If I want to check if either one condition or another are true, use **or**

---



How do I check **if** an integer is **greater than 10** and **less than 50**?

```
int number = 35;  
  
if ((number > 10) && (number < 50)) {  
    System.out.println("It is between 10 and 50!");  
}
```

---

How do I check **if** a String is “Andrew” or “Ryan”?

```
String name = “Andrew”;  
  
if ((name.equals(“Andrew”)) || (name.equals(“Ryan”))  
{  
  
    System.out.println(“You must be cool!”);  
  
}
```


---

# COMPARING APPLES AND BANANAS



BANANA PRICES... NOW WITH  
APPLES!

Make a program that outputs  
the price of bananas and the  
price of apples

- 
- 1) Ask the user if they want apples or bananas
  - 2) Ask how many of that fruit they want
  - 3) Apples cost
    - a) 15 cents for orders less than 10
    - b) 10 cents for orders between 10 - 20 (inclusive)
    - c) 5 cents for any more than 20
  - 4) Bananas cost
    - a) 50 cents each for orders less than 5
    - b) 35 cents for orders 5 - 10 (inclusive)
    - c) 25 cents for orders more than 10
  - 5) Print the total cost (in cents) and the type of the fruit

## BOOLEANS EXPRESSIONS

```
if ( what goes here? ){  
    // do something  
}
```

- An *expression* that evaluates to **true** or **false**

# BOOLEANS AND RELATIONAL OPERATORS

- So how do you make an *expression*?
  - You compare things!
- How do you compare things?
  - *Relational operators*...

<

<=

==

>

>=

!=

—