BEGINNER PROGRAMMING COURSE

CLASS 2

REVIEW

- Create variables that store the following values:
  - 5
  - “Team 3128”
  - 4.5
  - (true/false) wether or not the third is greater than the second
  - A combination of the second variable and “ AlumNars”
  - A value .03 greater than the first variable

ON MODIFYING DATA

- If you operate on two **int**s, the result will be an **int**
- If you would like a double, you must **cast** one of the arguments:
- For instance, to use **int x** into a double, you must:

```
(double) x
```

ONWARDS TO CONDITIONALS

- A conditional is a statement that will do something if an inputted boolean value is true

IF, ELSE, AND ELSE IF

- Sample **if** statement

```
boolean a;
boolean b;
boolean c;

if (a) {
    // Code block A
}
if (b) {
    // Code block B
}
else if (c) {
    // Code block C
}
else {
    // Code block D
}
```

MAKING BOOLEANS

- Boolean values can be returned using the relational operators:
  - == (is equal to)
  - != (is not equal to)
  - > (is greater than)
  - < (is less than)
  - >= (is greater than or equal to)
  - <= (is less than or equal to)

AN EXAMPLE

- Let’s look at an example

TRY IT

- Create a program that prints out wether the product of two decimal values is greater than, equal to, or less than their sum

SWITCH CASE

- What if you have some ginormous clump of else ifs?
- For instance, printing out the month based on the month number
- You would normally do:

```
int monthNo = 8;
String monthString = "";

if (monthNo == 1) {
    monthString = "January";
}
else if (monthNo == 2) {
    monthString = "Febuary";
}
else if (monthNo == 3) {
    monthString = "March";
}
// ...
else if (monthNo == 12) {
    monthString = "December";
}
else {
    monthString = "Fake Month";
}
```

SWITCH CASE

- Well, there's a better way.

```
int month = 8;
String monthString;
switch (month) {
    case 1:
        monthString = "January";
        break;
    case 2:
        monthString = "February";
        break;
    //...
    case 12:
        monthString = "December";
        break;
    default:
        monthString = "Invalid month";
        break;
}
System.out.println(monthString);
```

```java
int monthNo = 8;
String monthString = "";

if (monthNo == 1) {
    monthString = "January";
}
else if (monthNo == 2) {
    monthString = "Febuary";
}
else if (monthNo == 3) {
    monthString = "March";
}
// ...
else if (monthNo == 12) {
    monthString = "December";
}
else {
    monthString = "Fake Month";
}
```

```java
int month = 8;
String monthString;
switch (month) {
    case 1:
        monthString = "January";
        break;
    case 2:
        monthString = "February";
        break;
    //...
    case 12:
        monthString = "December";
        break;
    default:
        monthString = "Invalid mon
        break;
}
System.out.println(monthString);
```