

Today

- In case you have questions about PA6, [read Piazza](#)
- Assignment 7 released. Remember to use only the lecture material
 - Just like for Assignment 6, we are practicing if statements:
 - Use the boolean variable keyPressed
 - Don't use the function keyPressed()
- ICA in Gradescope
- Practice with variables

Changes to the schedule

- Solve the worksheet on variables by hand. We will collect it at the beginning of next class.
- Ask us for explanations in Piazza.
- Do not have any reading for this weekend.

Changes to the schedule

1. I have removed several topics from the syllabus:
 - Computer Networks, Computer Security, user defined functions, Cryptography, floating point variables, audio, and video in Processing.
2. The most important topics from this course are:
 - Variable handling
 - Conditional statements
 - And For loops

Practice with variables and if statements

Boolean Operators

- There are several ways to make a boolean expression
 - Just write the name of a boolean variable (for example: **keyPressed** or **mousePressed**)
 - Compare two non-boolean values (numbers or characters) with comparison operators

< > <= >= == !=
 - Use Boolean logical operators

Boolean Operators

- **&&** (logical and)
 - **X && Y** is **true** if both **X** and **Y** are true
 - If one is **true** or neither are **true**, it makes the whole expression **false**
- **||** (logical or)
 - **X || Y** is **true** if both **X** and **Y** are **true**, or if one of them is **true**
 - If neither are **true**, it makes the whole expression **false**
 - **Example:**
 - **x == 0 || y==0**

Question 1

Write a program for the following task.

Task

Given two integers, x and y, perform the following conditional actions:

~~If x and y are equal, print The Variables are Equal.~~

~~If x and y are different, print The Variables are Different.~~

If any of the variables is equal to zero, print At least One of the Variables is Zero.

If any of the variables is negative, print Variable <name of var> is negative.

Sample:

x	y	Output
6	5	The Variables are Different.
0	0	The Variables are Equal. At least One of the Variables is Zero.
-4	9	The Variables are Different. Variable X is negative.
-5	-5	The Variables are Equal. Variable X is negative. Variable Y is negative.
0	-8	The Variables are Different. At least One of the Variables is Zero. Variable Y is negative.

SOLUTION FROM A STUDENT

```
//If x and y are equal, print The Variables are Equal.
if (x == y) {
    print("The Variables are Equal.");
} else {
    print("The Variables are Different.");
}

//If x or y are equal to zero, print At least One of the Variables is Zero.
if (x==0 || y==0){
    print("At least One of the Variables is Zero.");
}

//If any of the variables is negative, print Variable <name of var> is negative.
if(y<0){
    print("Variable y is negative");
}
if (x<0){
    print("Variable x is negative");
}
```

Please ask me questions

How are you feeling?

- A. Very confused
- B. Need a lot more practice
- C. Need a little more practice
- D. Just have a couple of questions
- E. Feeling good

