### This is CS50

cs50.yale.edu

## 68%

of CS50 students have never taken CS before

what ultimately matters in this course is not so much where

you end up relative to your classmates but where you,

in Week 10, end up relative to yourself in Week 0



## 1 2 3



### 

### **ASCII**

### 65 66 67 68 69 70 71 72 73 ...

A B C D E F G H I ...

72 73 33

H I 72 73 33

#### 

# H I ! 72 73 33 1001000 1001001 100001

#### abstraction

#### 1001000 1001001 100001

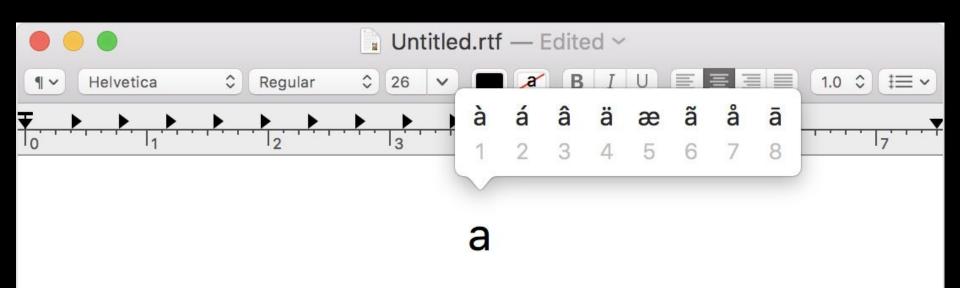
### 72 73 33 1001000 1001001 100001

# H I ! 72 73 33 1001000 1001001 100001

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Key

Key





#### Unicode

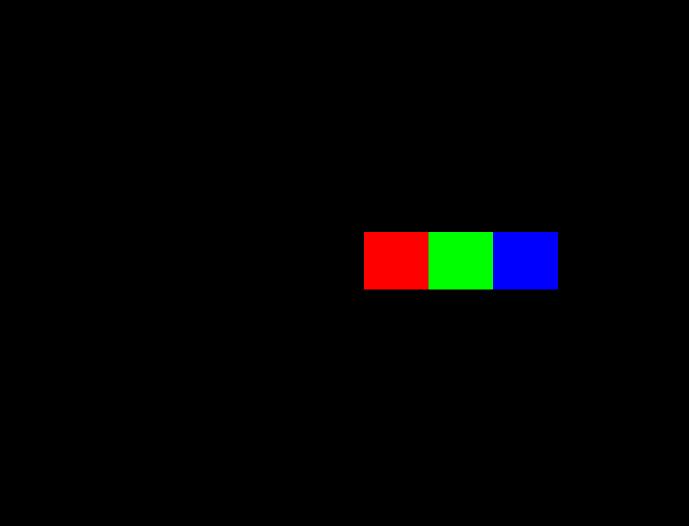
#### UTF-8



### 

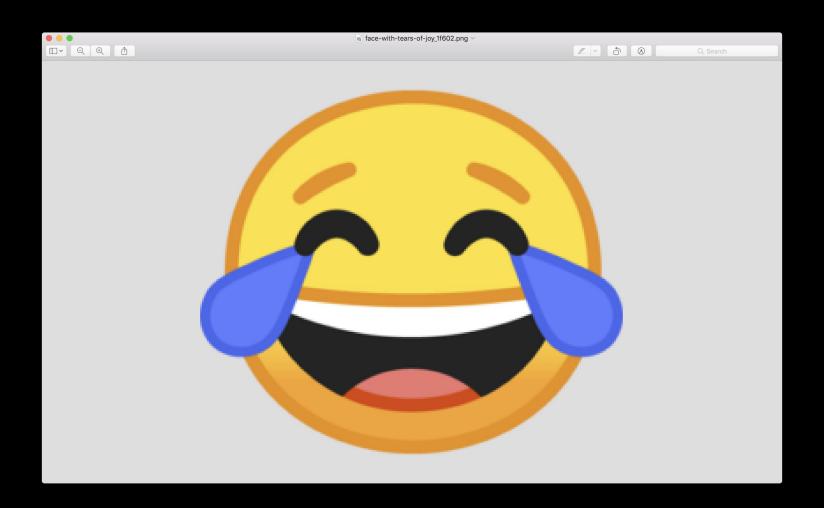
### 

### RGB



 72
 73
 33

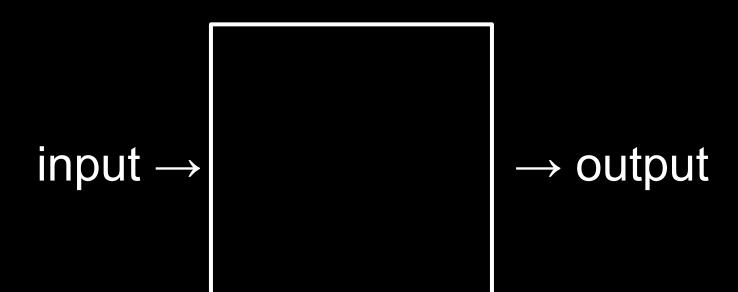












algorithms

### pseudocode

```
pick up phone book
 0
    open to middle of phone book
2 look at names
   if Smith is among names
3
        call Mike
4
   else if Smith is earlier in book
        open to middle of left half of book
 6
        go back to step 2
    else if Smith is later in book
8
        open to middle of right half of book
9
10
        go back to step 2
11
    else
12
        quit
```

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#### Linear Search

## Binary Search

#### **Bubble Sort**

#### Selection Sort







# No homework this week!

See <u>cs50.yale.edu</u> for syllabus!