

representation

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

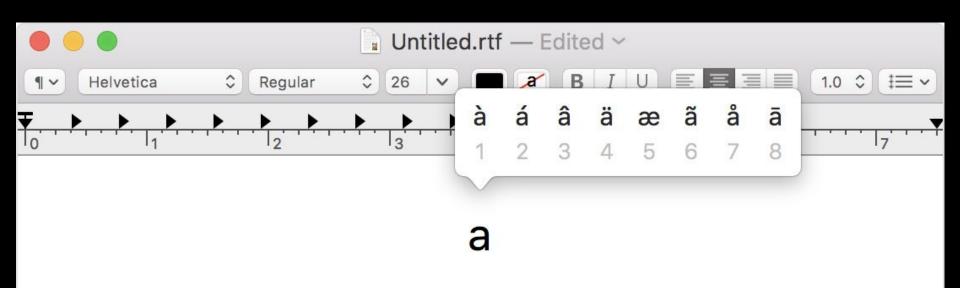
72 73 33 1001000 1001001 100001

H I ! 72 73 33 1001000 1001001 100001

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Key

Key





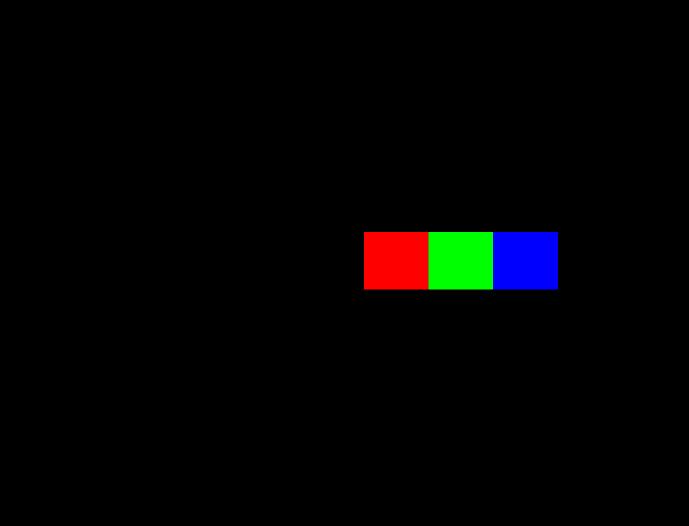
Unicode

UTF-8



72 73 33

RGB



 72
 73
 33





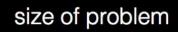


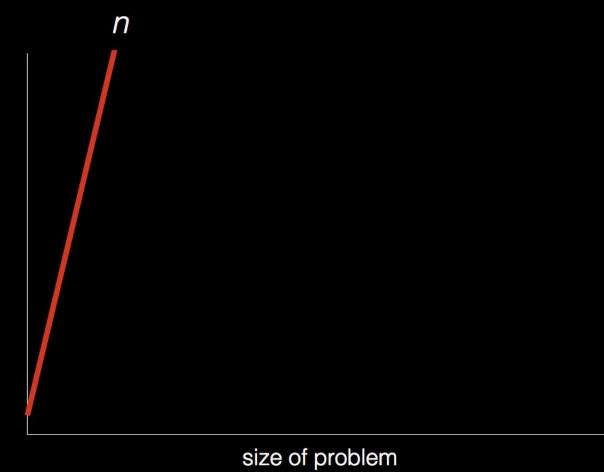






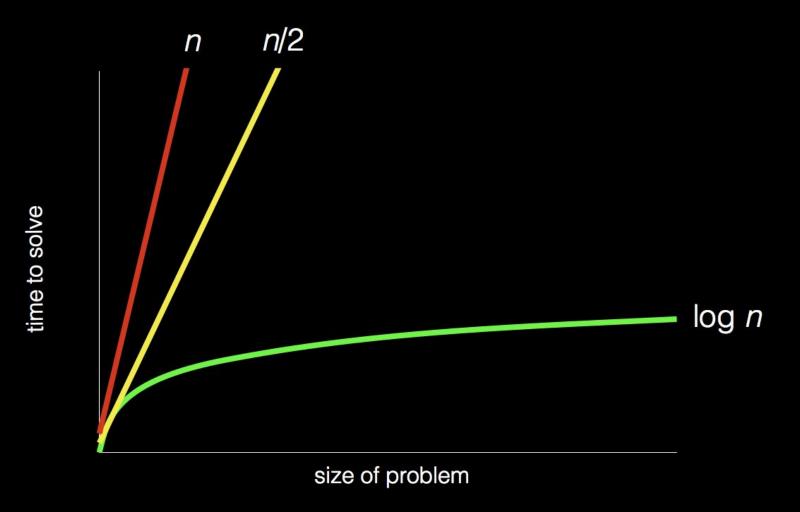
algorithms





time to solve

time to solve



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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- functions
- conditions
- Boolean expressions
- loops

- functions
- conditions
- Boolean expressions
- loops
- variables
- threads
- events
- ..

