Numbers system
  decimal
  binary
    hexa decimal
    octaed
conversion binary to decimal

ascii

jdk jvm jre
installing java in windows

print
println

game assignment

$1 \to 10$

$0\ 1\ 2\ 3\ 4\ \ldots 6\ 6\ 7\ 7$

$\underline{10}$

$0 \sim 9 \quad ABCDEF$

$) \ 0 \ 1\ 2\ 3\ 4\ 5\ 6\ 7$

$6\ 8\ 4\ 2\ 1$
$1\ 1\ 0\ 0\ 1$

$25 \to$

"abcd" $\to$

---

numbers

decimal number
-3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, ...

3456 -> decimal
computer lang?
1 0
binary
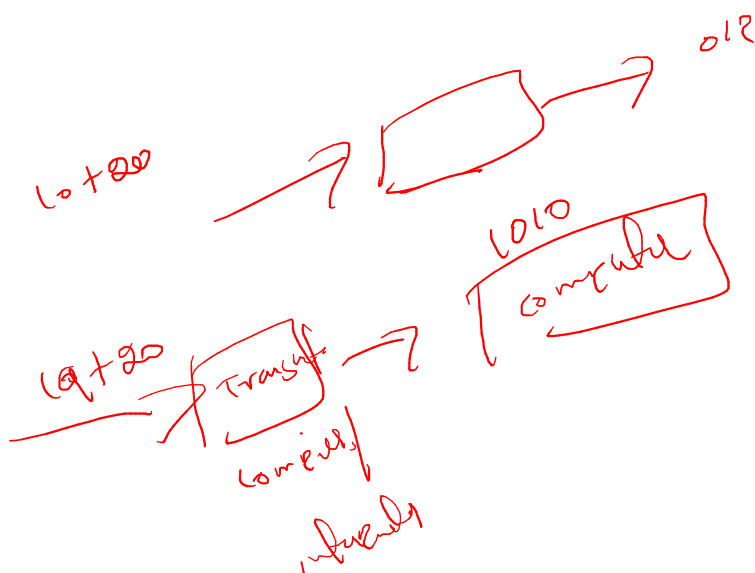1111100111 -> binary

Numbers system
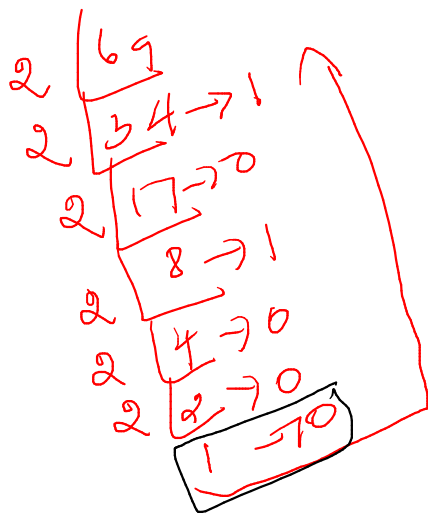 decimal
  binary
  hexa decimal
  octal

$\begin{array}{cc} 1 & 0 \\ 2^3 \to 2 & 2^1 \end{array}$

$\begin{array}{cc} 1 & 0 \\ 2^1 & 2^0 \end{array}$

$8 + 2 = 10$

$99 \to \ \ \ \ \ \ 99$

$10 + 80$

012

$10 + 80$

$69 + 20 \quad$ Transmit $\to$

1010 computer

conversion
internal

Decimal $\to$ binary
$1\ 0\ 1 \quad 6$

$\begin{array}{r} 2\,|\,10 \\ 2\,|\,5 \to 0 \uparrow \\ 2\,|\,2 \to 1 \uparrow \\ 2\,|\,1 \to 0 \uparrow \\ 0 \to 1 \uparrow \end{array}$

Handwritten (red):

Top-left long division by 2 of 69:
```
2 | 69
2 | 34 → 1
2 | 17 → 0
     8 → 1
2 |  4 → 0
2 |  2 → 0
2 |  1 → 0
       1 → 0
```
69 → 1 0 0 0 1 0 1

Top-right long division by 2 of 35:
```
2 | 35
2 | 17 → 1
2 |  8 → 1
2 |  4 → 0
2 |  2 → 0
2,  1 → 0
      1 → 0
```
= 1 0 0 0 1 1

Decimal → Binary

Middle-left:
2 → 1/0

Long division by 2 of 69:
```
2 | 69
2 | 34 → 1
2 | 17 → 0
2 |  8 → 1
2 |  4 → 0
2 |  2 → 0
2 |  1 → 0
      1 → 0
```
64 + 4 + 1 = 69
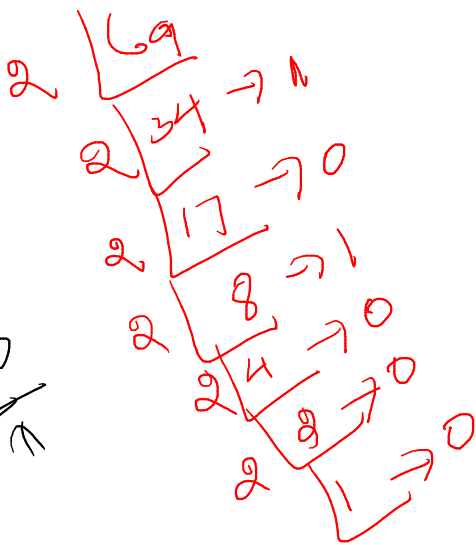
Right-side:
```
 1   0   0   0   1   0   1
2^6 2^5 2^4 2^3 2^2 2^1 2^0
 64
```
$(1 \times 2^6) + (0 \times 2^5) + (0 \times 2^4) + (0 \times 2^3) + (1 \times 2^2) + (0 \times 2^1) + (1 \times 2^0)$

Typed text:

how to run java
1. cd C:\Users\Kannan\Documents\Review
2. javac Main.java
3. java Main

hello world

java

1. download
2. install (next)
3. environment varibales
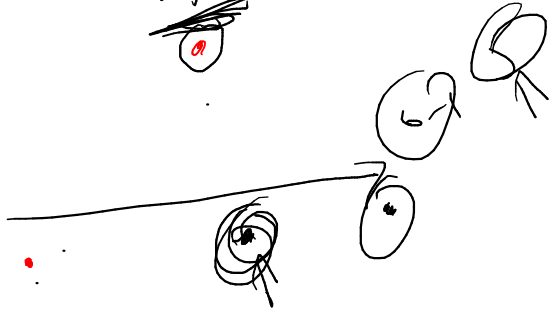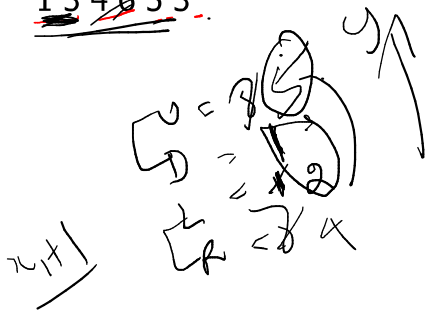   environment varibales for your account
    click on path
    click on edit
    click on new C:\Program Files\Java\jdk-17.0.1\bin

4. open command prompt
5. type java

8 8
4 5
3

1 3 4 6 5 3

25 → nt de int

"abcd" → ASCII → Binary
        decml

"abcd" → 97 98 99 100