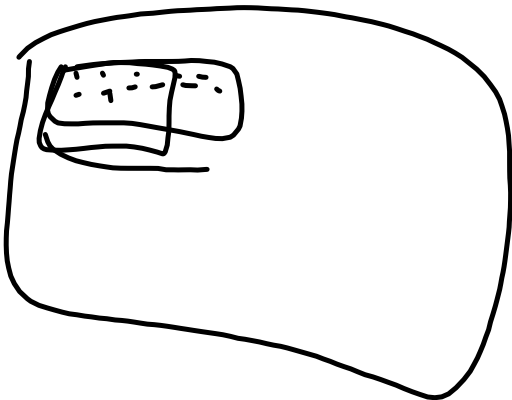
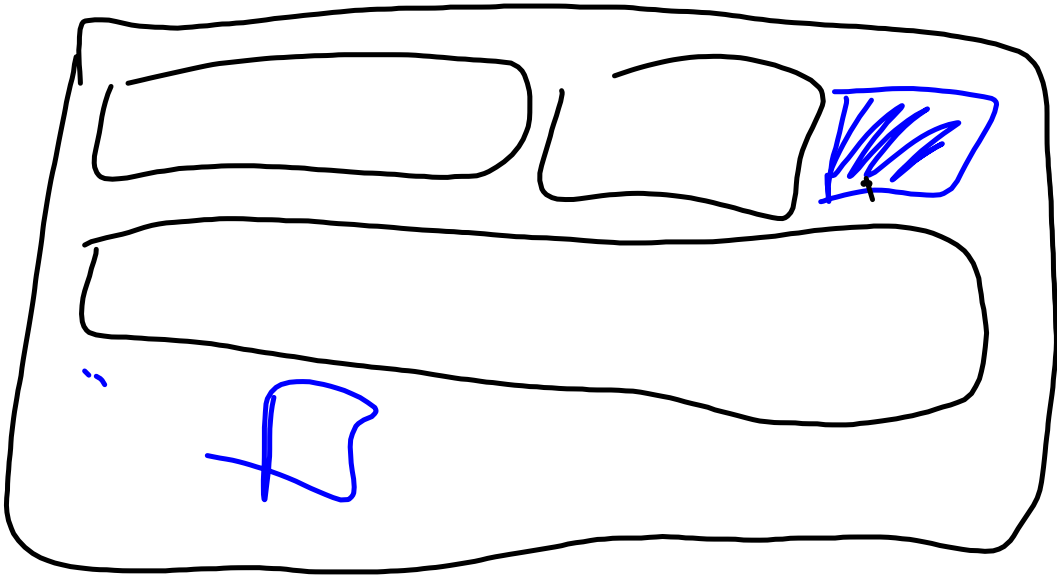
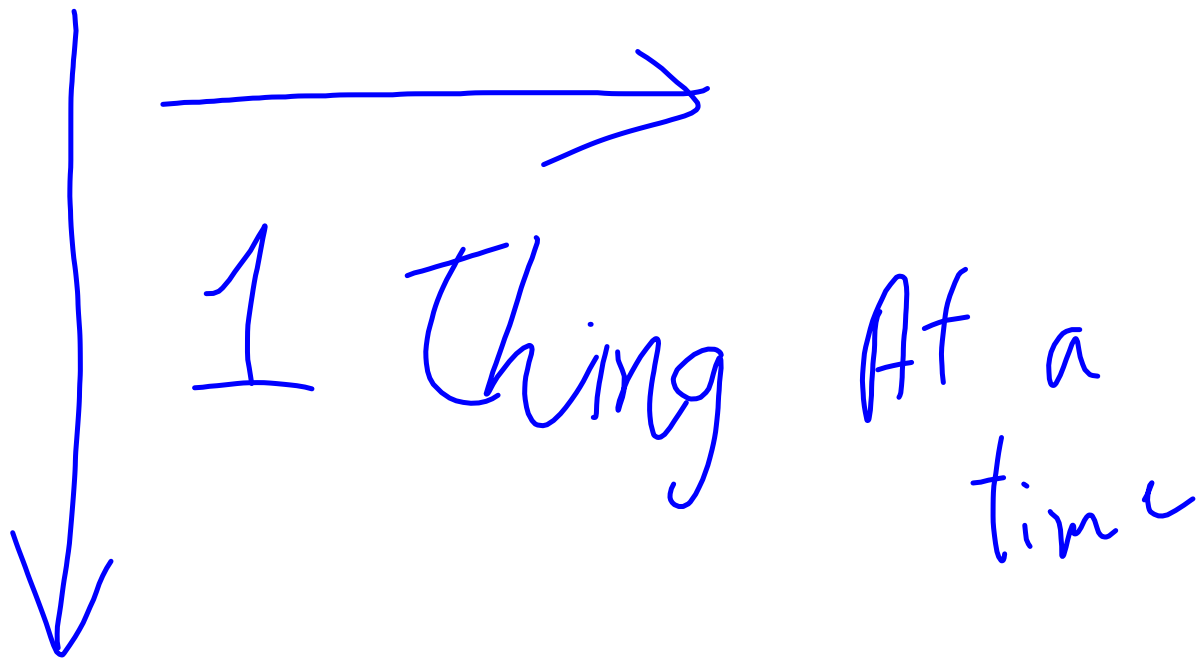


o o p
o o p s





int 4 bytes



int / long -3 , 4 , 0 , ~~02~~
double / ⁸float ⁴ -3.48 0.1234____
 char 'a' 'z' '1' '9' '#'

String "a" "Hello..." "1..9"
 "A32@GMAIL.com"

bool true false
 bit 1 0

$\underbrace{\text{int}}_{\text{type}} \quad \underbrace{\text{ageOfDog}}_{\text{name.}} = \underbrace{0}_{\text{initialize}};$



```
int x = 5; //  
int y = 2;  
int sum = x + y + y + y;  
           5  2  2  2  
           7
```

`int x = 2;`
`double y = 2.4;`
`int sum = x + y + y + y + x;`

11
 9.2
 2.0 2.4
~~14.4~~

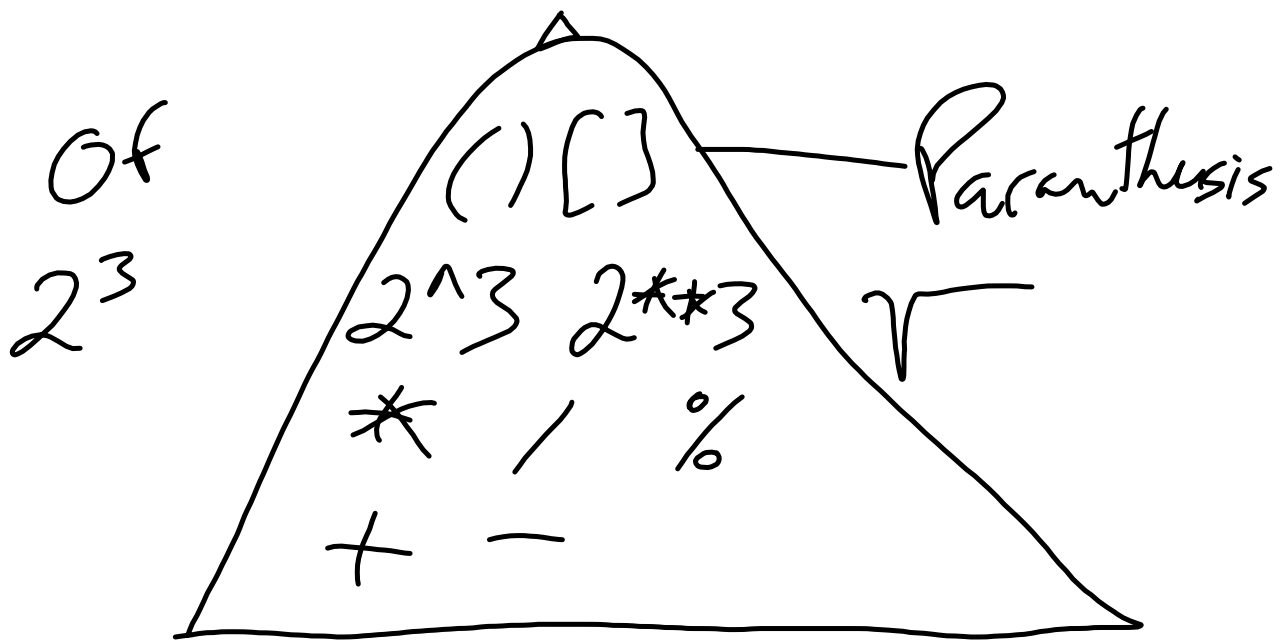
int x = 5;

int y = 2;

int sum = x + ⁵x / ²y + x;

~~7~~ 2 12

12 69



```

int x = 5;
int y = x * 2;
x = x + x;
int sum = (x + y) + y + x * x;

```

Handwritten annotations in blue:

- For `int y = x * 2;`: A vertical line separates `x` and `2`. Above `x` is a `5`, and above `2` is a `2`. Below the line is a `10`.
- For `int sum = (x + y) + y + x * x;`: Above the first `x` in `(x + y)` is a `10`. Above the `x` in `x * x` is a `100`. Below the `(x + y)` term is a `20`. A blue line is drawn under the `(x + y)` term and the `x * x` term.

```
int a = 3;
```

```
int b = 5;
```

```
int sum = sum + a + b;
```

int x = 5;
~~int~~ x = 3;

Modulous

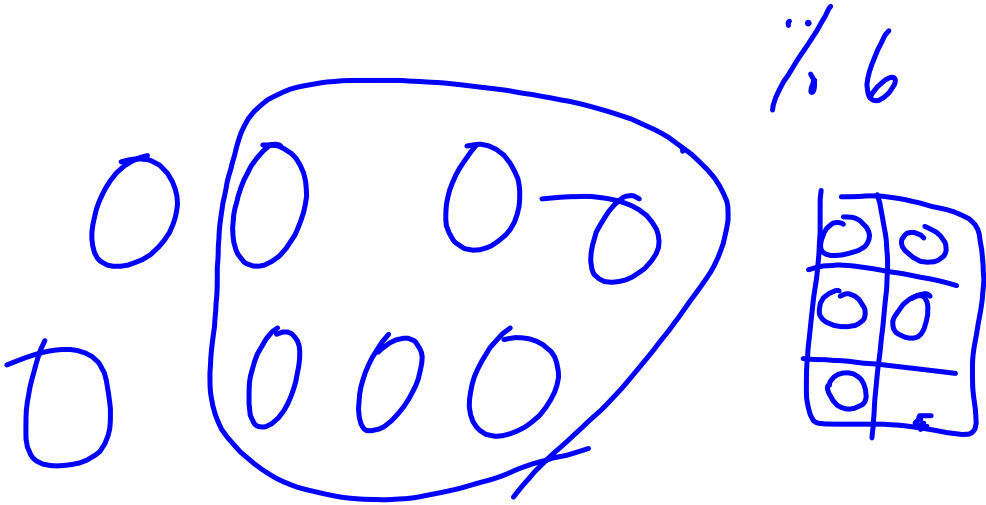
%

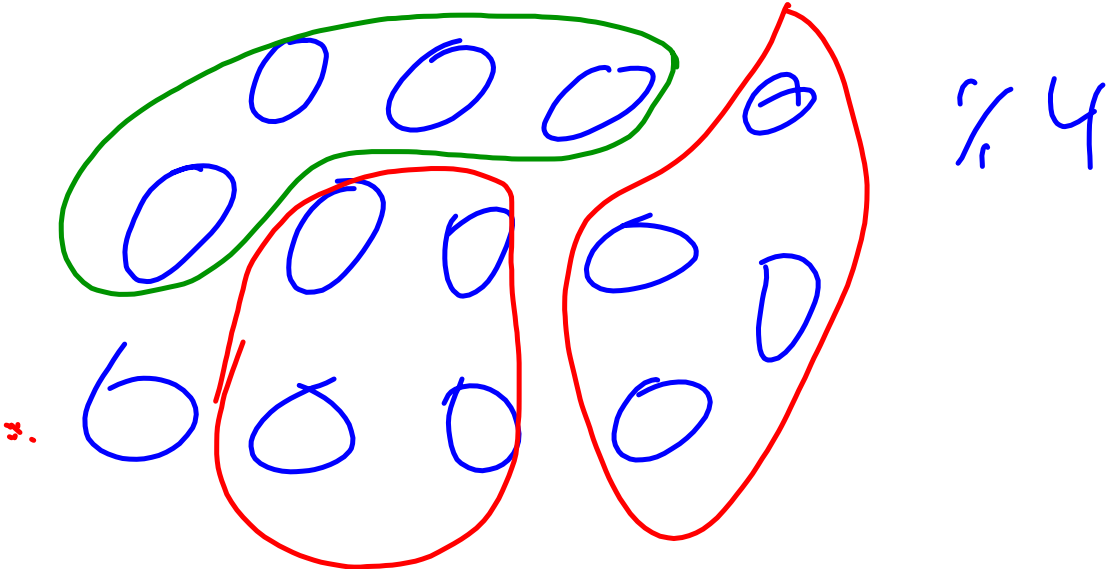
! Remainder

$$10 / 3 = 3.33333$$

$$10 \% 3 = 1$$

0	1	2	3	4	5	6	7	8	9	10	11	12
^{1/2} 0	1	0	1	0	1	0	1	0	1	0	1	0
^{2/3} 0	1	2	0	1	2	0	1	2	0	1	2	0
^{3/5} 0	1	2	3	4	0	1	2	3	4	0	1	2





7.4

...

DE

9838764/4
 2

1099

`int x = 234;` 0...99

`x = x % 10;`

0...9

9 % 11

11 / 0

346 % 346

Input Output
Scans Print

Output

1
21

System.out.Print(" ");
 err Println(" ");
 Printf(" ");

```
Print("Hello ");  
Print("Apple");  
Println("Orange");  
Print("Whaa");
```

Handwritten output: Hello AppleOrange
Whaa ;

String concatenation

$$~~1 + 1 = 2~~$$

$$"1" + "1" = "11"$$

Print
("Hello, my name is " + name
+ ". I am " + age);

Print format

Print("I have " + *dogs* + " dogs.");

Printf("I have %d dogs", *dogs*);

Printf("----- %d ----- %s ----- %c", 9, "c", 'c')

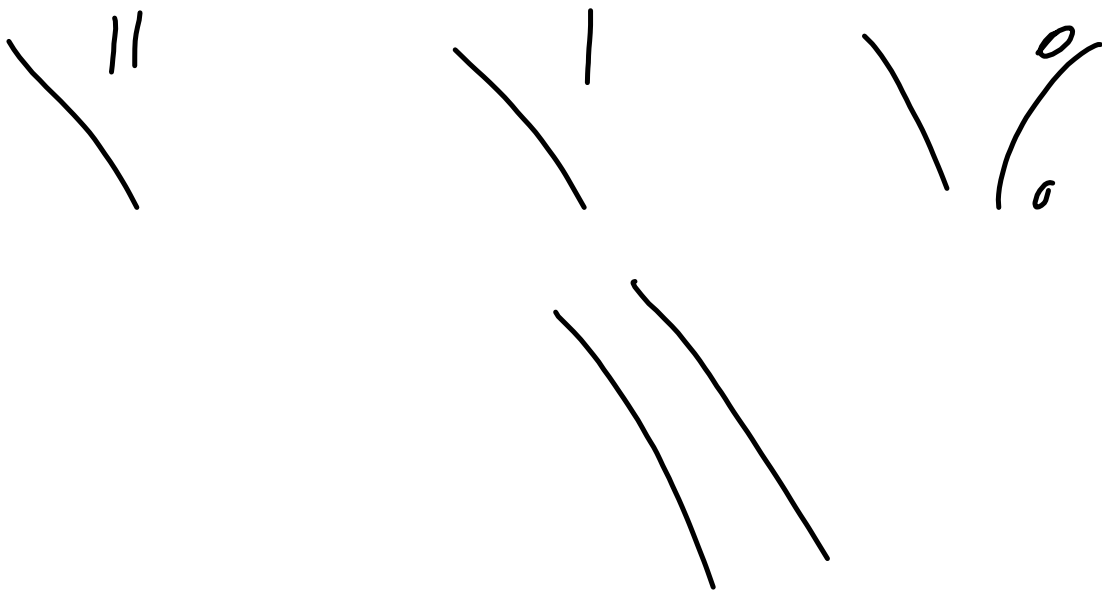
The diagram shows the following components and annotations:

- Format string:** `"----- %d ----- %s ----- %c"`
- Arguments:** `9`, `"c"`, and `'c'`
- Annotations:**
 - A blue box encloses the format string and the first two arguments (`9` and `"c"`).
 - A red box encloses the third argument (`'c'`) and the closing quote.
 - A red arrow points from the `%c` in the format string to the `'c'` in the third argument.
 - A red arrow points from the `'c'` in the third argument to the `'c'` in the closing quote.
 - A red arrow points from the `'c'` in the closing quote to the `'c'` in the third argument.

Print("Reza said \ Sir, ... don't fail me ");
 Print(" %s");

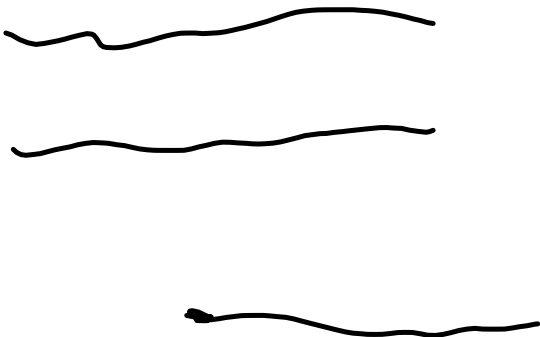
11

9



char x = '\1';

$\backslash n$ Print(".... Rez $\backslash n$");
 $\backslash t$ \rightarrow



([(")]) ;

Snipping Tool

Hello, my name is "Reza".

I have 9 bags.

I Travel to India 0 time this year.

