

`System.out.print();` \Rightarrow Error
`System.out.println();` \Rightarrow Empty line
`System.out.print(123);` \Rightarrow 123
`System.out.print(30+60);` \Rightarrow 90
`System.out.print("30+60");` \Rightarrow 30+60
 \Downarrow
Text

Data Types

	Ice	Water	Vapour
	Solid	Liquid	Gas
container :	Bucket with holes	Tank	Cylinder

Data printed \Rightarrow Number, Text

Numbers

\hookrightarrow	Integer	(int)	} Integers
\hookrightarrow	Long	(long)	
\hookrightarrow	Float	(float)	} Decimal
\hookrightarrow	Double	(double)	

Shop

Coffee \leq 50ml
 \hookrightarrow 50ml

Coffee \leq 100ml
 \hookrightarrow 50ml, 100ml
 \downarrow \downarrow
40ml 80ml

Limited space

32 bit

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 \Rightarrow int
64 bit

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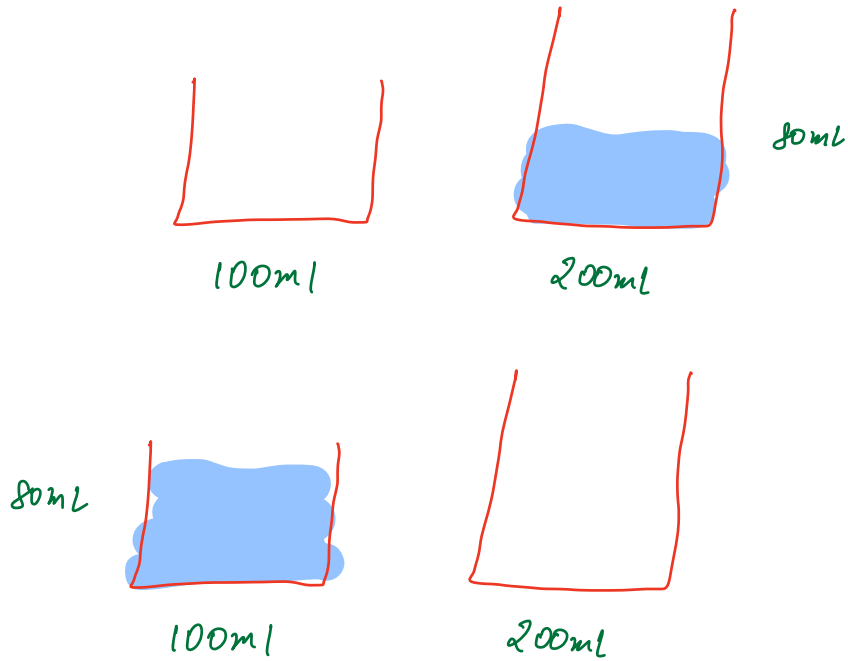
 \Rightarrow long

$$\begin{aligned} -10^9 &\approx -2^{31} & \leq \text{int} & \leq 2^{31}-1 & \approx 10^9 \\ -10^{18} &\approx -2^{63} & \leq \text{long} & \leq 2^{63}-1 & \approx 10^{18} \end{aligned}$$

32 bits float \Rightarrow Low precision 4.32
64 bits Double \Rightarrow High precision 4.3256 99

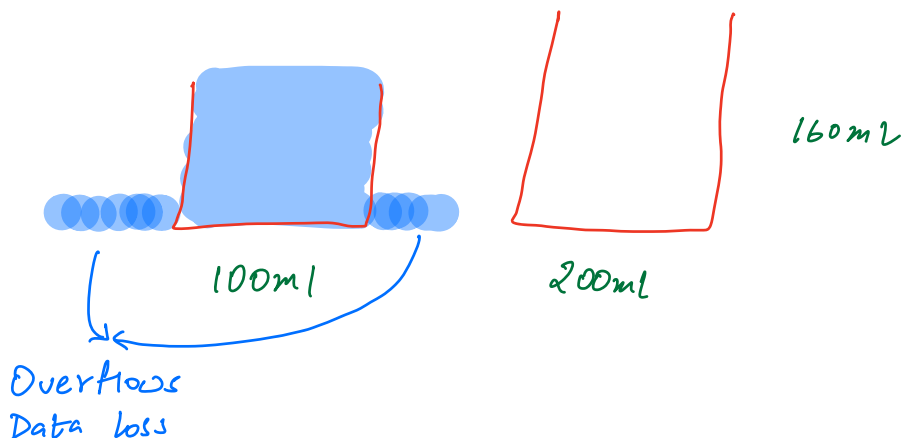
Text \Rightarrow String \Rightarrow Anything b/w " "

Type casting

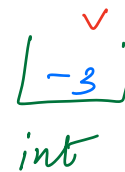
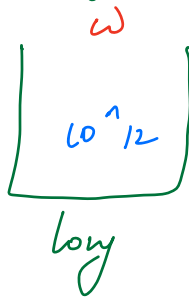
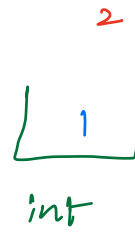
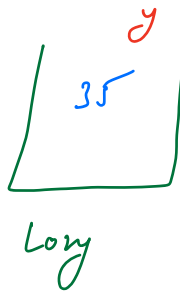
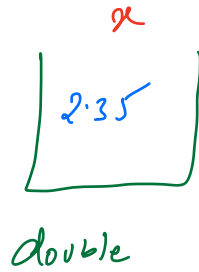


Smaller \rightarrow Bigger
Bigger \rightarrow Smaller

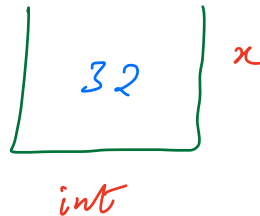
Overflow



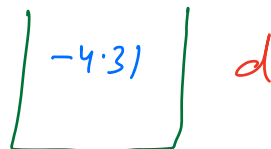
Variables



int x;
x = 32;



double d;
d = -4.31



double

float t;

long l;

Break: 10pm