Step Into Java: int, int operators

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Java

int's…….

Q: Why numbers? A: Arithmetic!

- What about 1812?
- arithmetic on Strings is not easy
- built into java

int's…….

Simple Definition:

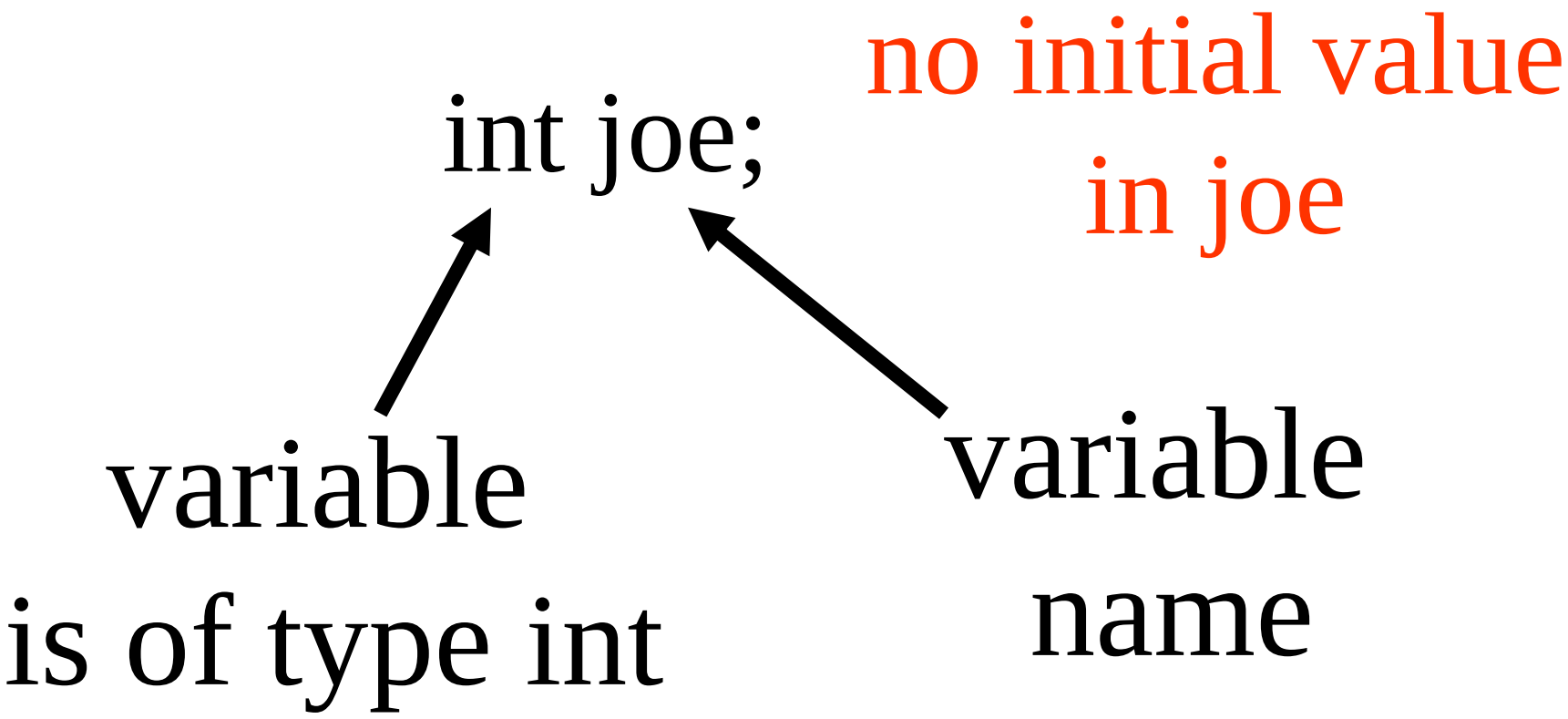
- whole number (no decimal)
- can be +, - or 0
- used for counting

Advanced Definition

- four byte's long
- range from -2^{31} to $2^{31}-1$
- -2147483648 and 2147483647

int's…….

Integer variable creation:



int’s…….

Would this compile?

System.out.print(joe);?

Setting the value of an int variable

```
int joe;
EasyReader sam = new EasyReader();
joe = sam.readInt();
System.out.print(joe);
```

int comparison operators

= = is-equal-to-operator

!= is-not-equal-to-operator

< less-than-operator

> greater-than-operator

<= less-than-or-equal-to-operator

>= greater-than-or-equal-to-operator

int operators

- (subtract), + (plus), * (multiply),
- / (divide), % (remainder)

- What goes first?
    - ( )
    - *, / , % left to right, then +, - L to R

// Please Excuse My Dear Aunt Sally

int % operator

- remainder operator

25 % 10 = 5

25 / 10 = 2

note: all int's…no decimals!

Lab

Write a java program that finds the middle value (numerically) of three numbers

Example Output:

Please enter first number:
21
Please enter second number:
14
Please enter third number:
37

The middle value is 21

Lab
Pseudo Code

1) declare 4 integers
2) let user load 3 integers
3) find middle value
4) write middle value to screen