## Another Primitive: doubles

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Java

#### Review

What if there were just int's? Calculate GPA:

$$(3+4+4+4+3)/5 = ?$$

#### doubles

What is the value if decimals are used?

$$(3.0 + 4.0 + 4.0 + 4.0 + 3.0)/5.0 = ?$$

# doubles Breaking news....

Selecting the correct variable type is REALLY important in representing the problem in a computer program.

### doubles

#### Simple Definition:

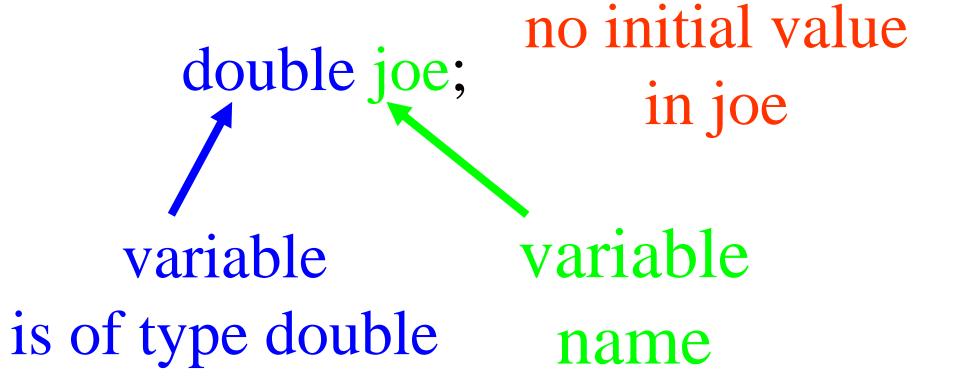
- two whole numbers with a decimal between them
- can be +, -, 0
- used for measuring

#### Advanced Definition:

- Value ranges
  - furthest from zero 1.7e<sup>308</sup>
  - closest to zero 1.7e<sup>-308</sup>

#### double's.....

double variable creation:



double's.....

Would this compile?

System.out.print(joe);

Try it!

#### double's.....

```
double a;
double b, c;
double d;
a = 1.0;
b = 3.0;
c = 10.0;
d = a + b + c;
System.out.println(d);
d = d + a + b + c;
System.out.println(d);
```

#### Lab

Write a java program that converts a Fahrenheit temperature to Celsius.