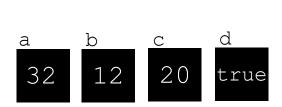
Variables, values, and types



int
$$a = 32$$
type variable value

int $b = 12$
int $c = 32$
int $c = 32$
bool $d = a > b$

Comments

```
int a = 32
// ignored
int b = 20
/*
ignored
int c = a-b
*/
bool d = a > b
```

The need for functions

Tired

```
int a = 2*2*2 - 2

int b = 3*3*3 - 3

int c = a-b
```

Wired

```
int a = 2-ish magic
int b = 3-ish magic
int c = a-b
```

Inspired

```
int magic (int x) {
  return x*x*x - x
}

int a = magic(2)
int b = magic(3)
int c = a-b
```

Playing with functions

```
int a = magie(2)^6
int b = magie(3)^{24}
int c = a-b
```

Fancier functions

```
int magic (int x) {
  return x*x*x - x
}
```

```
int bigger (int x, int y) {
  if x > y
  then return x
  else return y
}
```

```
bool positive (int x) {
  if x >= 0
  then return true
  else return false
}
```

```
bool combined () {
  int a = magic(2)
  int b = magic(-1)
  int c = bigger(a,b)
  return positive(c)
}
```

Fancier types

Later, you will see some strange types.

Not int and bool, but Person, Letter, Router, and Packet.

Try to remember how to break it down!