Enumerations

Integers

Stel: variabele met eindig aantal verschillende waarden

```
int NORTH = 0;
int EAST = 1;
int SOUTH = 2;
int WEST = 3;

int richting = SOUTH;
switch (richting) {
case NORTH:
    // Doe iets
    break;
case EAST:
    // Doe iets anders
    break;
}
```

Enumerations

```
enum Direction {
  NORTH, EAST, SOUTH, WEST
};

enum Direction richting = SOUTH;

void f(enum Direction richting);
f(EAST);
```

Enumerations

Enumerations zijn gewoon integers:

```c
enum Direction {
//   0      1      2      3
  NORTH, EAST, SOUTH, WEST
};

enum Direction richting = SOUTH;
int test = richting + 1;
enum Direction richting_2 = test;
// richting_2 == WEST
```

Enumerations

```
enum Direction {
  NORTH = 10, EAST = 7, SOUTH = 4, WEST = 42
};
```

Opgelet:

```
enum Direction {
  NORTH = 10, EAST = 10, SOUTH = 4, WEST = 42
};
```

Enumerations

Enumerations kunnen vergeleken worden met macro's:

```
enum Direction {
  NORTH = 10, EAST = 7, SOUTH = 4, WEST = 42
};
```

is gelijkaardig aan:

```
#define NORTH 10
#define EAST 7
#define SOUTH 4
#define WEST 42
```