

c

TYPE CONVERSION

Implicit type conversions

- perform operation with mismatched types
- assigning values to variables
- calling functions with type other than specified
- Examples:
 - `int x = 5.0;`
 - `double y = 5.0/2`
 - `char c = 50`

EXPLICIT TYPE CONVERSIONS

- typecasting
- `(type) expression;`

OPERATORS

- Assignment: =
- Mathematical:
 - +, -, /, *
 - Mod (remainder): '%'
 - All can be combined with = to operate and assign
- Increment/decrement: `i++`, `i--`
- Comparison: `==`, `!=`, `>`, `<`, `>=`, `<=`

LOGICAL OPERATORS

- Boolean not: `!`
- Boolean and: `&&`
- Boolean or: `||`
- Combinations only execute as far as they need to
- Depending on C version, may not have `bool`
 - Introduced in C99
 - Need to `#include <stdbool.h>`
- Otherwise, ints act as bools (0 is false)

CONTROL STRUCTURES - IF

```
if (expression) {  
    statement;  
}  
else {  
    statement;  
}
```

```
if (expression) statement;
```

TERNARY OPERATOR

- Shorthand for some ifs
- Expression -- just chooses which expression based on value of another

```
expression ? expression : expression
```