

Key Concepts:

Warning: this list is not comprehensive!

- **Bool Data Type:** true, false
- **Control Flow:** if, else if, else
- **Switch Statements:** switch, case (remember break!), default
- **Ternary Operator:** condition ? true return value : false return value
- **Comparison Operators:** !=, ==, >, <, >=, <=
- **Logical Operators & Precedence:** !, &&, ||
- **Common Errors:** scope (use braces), equality (== vs =),
bitwise (||, && vs |, &), floating point comparisons
- **Order of Precedence:** (), !, arithmetic, relational, equality, &&, ||
- **Short Circuit Evaluation**
- **String Functions:** at(), size(), append(), find(), substr()
- **Char Functions:** <cctype>, isalpha(), isdigit(), tolower(), toupper()
- **Coding Practice:** unit tests, header guards, .h vs .cpp files
- **How Functions Work:** stack frames, default values, overloading
- **Pass by Value vs Pass by Reference**

“Can I copy your HW?”

“Yeah just change it up a bit so it doesn’t look obvious you copied.”

```
if(count > 10){  
    total += 15;  
}  
else{  
    total += 0;  
}
```

```
total = (count > 10) ? (total + 15) : (total + 0);
```