

CMSC131

Ternary Operator
Switch Statement

The ternary operator

The ternary operator is of the form

```
(boolean_expression)?if_true;if_false;
```

A simple example using assignment

```
String s=(x<0)?"Negative":"Not Negative";
```

More useful "tricks" include things such as

```
minVal = (a < b) ? a : b;
```

```
absValue = (a < 0) ? -a : a;
```

To print the following based on the value in a variable called **numCookies** being 1 or some other number.

There is 1 cookie in the jar.

There are # cookies in the jar.

The solution could be something like:

```
StringBuffer output = "There ";  
output.append(x==1?"is 1 cookie":" are "+x+" cookies");  
output.append(" in the jar.");
```

The `switch` statement

Basically, a switch means that for simple primitives, instead of:

```
if (option == 1) {code1;}  
else if (option == 2) {code2;}  
else if (option == 3) {code3;}
```

you can use:

```
switch (option) {  
    case 1: code1; break;  
    case 2: code2; break;  
    case 3: code3; break;  
}
```

```
public int penStrokes(char c) {
    int retVal;

    switch(c) {
        case 'C': case 'L': case 'M': case 'N': case 'O':
        case 'S': case 'U': case 'V': case 'W': case 'Z':
            retVal = 1;
            break;
        case 'D': case 'G': case 'J': case 'P':
        case 'Q': case 'T': case 'X':
            retVal = 2;
            break;
        case 'A': case 'B': case 'F': case 'H': case 'I':
        case 'K': case 'R': case 'Y':
            retVal = 3;
            break;
        case 'E':
            retVal = 4;
            break;
        default:
            retVal = -1;
    }
    return retVal;
}
```

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