## Study Guide - Operators

An operator combines one or two expressions and performs an operation on the expression

## Mathematical Operators

| Add | Subtract | Multiply | Divide | Modulus |
| :---: | :---: | :---: | :---: | :---: |
| + | - | $*$ | $/$ | $\%$ |
| $3+\mathrm{x}$ | $\mathrm{y}-\mathrm{z}$ | total * 100 | loan / months | $7 \% 2$ |

## String Operator

+ (String concatenate)
Example: "Total: " + total


## Comparison Operators

| Greater than | Greater than <br> or equal to | Less than | Less than or <br> equal to | Is equal to | Not equal to |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $>$ | $>=$ | $<$ | $<=$ | $==$ | $!=$ |
| price $>$ <br> 100 | hits $>=10$ | $\mathrm{i}<100$ | score $<=0$ | $\mathrm{x}==0$ | $\mathrm{~s} \quad!=\cdots>$ |

## Assignment Operators

$=$ (Equals)
Example: $x=7$, name = "Bob"

## Logical Operators

| And | Or | Not |
| :---: | :---: | :---: |
| \&\& | $\\|$ | $!$ |
| $(x<10) \& \&(x>0)$ | (weight $!=0) \\|$ <br> (height $>100)$ |  <br> final $==$ false) |

## Compound Operators

```
+= -= *= /= %= ++ --
```

