Expressions & Assignments

* Some examples of relational operators are < and >
* The operator + in the expression 6 + 3 is an example of an infix operator
* Operator overloading is binding an operator symbol to more than one operation (for example, using + to mean both addition and concatenation)
* What is the result of evaluating the expression 60 \* 10 - 20 - 30 / 10 if multiplication (\*) has higher precedence than subtraction (-), that subtraction (-) has higher precedence than division (/), and that all operators are left-associative? 55
* A function changing the value of a global variable is one kind of side effect
* What is the result of evaluating the expression 9 + 2 \* 3 - 5 - 1 + 3 if we assume that all operators have the same precedence, and that all operators are left-associative? 30
* An operator that groups its operands right-to-left (for example, interpreting a - b - c as a - (b - c)) is called right-associative
* What is the result of evaluating the expression 60 \* 10 - 20 - 30 / 10 if we assume that all operators have the same precedence, and that all operators are left-associative? 55
* An r-value is an expression that can appear on the right-hand-side of an assignment
* What is the result of evaluating the expression 9 + 2 \* 3 - 5 - 1 + 3 if we assume that all operators have the same precedence, and that all operators are right-associative? 13
* What is the result of evaluating the expression 9 + 2 \* 3 - 5 - 1 + 3 if we assume that subtraction has higher precedence than multiplication, multiplication has higher precedence than addition, and all operators are left-associative? 6
* The operator ++ in the expression ++ x is an example of a prefix operator
* The value of c at the end of this code excerpt

a = 5;  
b = 10;  
c = 15;  
if (a > b && c++ < 0)  
       d = 20;

* is 15 if short-circuit evaluation is used, and 16 if full evaluation is used.
* An l-value is an expression that can appear on the left-hand-side of an assignment
* In Java, the expression a + b \* c is interpreted as a + (b \* c) because \* has higher precedence than +
* The operator ++ in the expression x ++ is an example of a postfix operator
* What is the result of evaluating the expression 60 \* 10 - 20 - 30 / 10 if we assume that all operators have the same precedence, and that all operators are right-associative? -420
* A binary operator has two operands
* An operator that groups its operands left-to-right (for example, interpreting a - b - c as (a - b) - c) is called left-associative