

Data Structures



Operators, Precedence and Associativity

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Last Class Summary

- **Control Flow**
- **Conditional/ Selection Statement**
- **Example: Odd or Even**
- **Flow Chart**
- **Program**

Assignment Operator

Assignment operator	Sample expression	Explanation	Assigns
<i>Assume: int c = 3, d = 5, e = 4, f = 6, g = 12;</i>			
+=	c += 7	c = c + 7	10 to c
-=	d -= 4	d = d - 4	1 to d
*=	e *= 5	e = e * 5	20 to e
/=	f /= 3	f = f / 3	2 to f
%=	g %= 9	g = g % 9	3 to g

Increment and Decrement Operator

Operator	Sample expression	Explanation
++	++a	Increment a by 1, then use the new value of a in the expression in which a resides.
++	a++	Use the current value of a in the expression in which a resides, then increment a by 1.
--	--b	Decrement b by 1, then use the new value of b in the expression in which b resides.
--	b--	Use the current value of b in the expression in which b resides, then decrement b by 1.

Operators Precedence and Associativity

Operators	Associativity	Type
<code>++</code> (<i>postfix</i>) <code>--</code> (<i>postfix</i>)	right to left	postfix
<code>+</code> <code>-</code> (<i>type</i>) <code>++</code> (<i>prefix</i>) <code>--</code> (<i>prefix</i>)	right to left	unary
<code>*</code> <code>/</code> <code>%</code>	left to right	multiplicative
<code>+</code> <code>-</code>	left to right	additive
<code><</code> <code><=</code> <code>></code> <code>>=</code>	left to right	relational
<code>==</code> <code>!=</code>	left to right	equality
<code>?:</code>	right to left	conditional
<code>=</code> <code>+=</code> <code>-=</code> <code>*=</code> <code>/=</code> <code>%=</code>	right to left	assignment

Questions?

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Today's Course Outcomes

- **CO1 – Implement C programs from algorithms and flowcharts with error handling. – K3**
- **CO2 – Implement programming fundamentals, decision and looping statements – K3**
- **CO3 – Implement C programs with pointers, arrays, and strings – K3**
- **CO4 – Implement C programs with structures, union, file-handling concepts, and additional features – K3**
- **CO5 – Analyze, breakdown, and solve large computational problems using functions – K4**

Summary

- **Assignment Operators**
- **Increment and Decrement Operator**
- **Precedence and Associativity**
- **Today's Course Outcome**

- **Kernighan, B.W and Ritchie, D. M, “The C Programming language”, 2nd edition, Pearson Education, 2006**
- **Deitel, H.M. and Deitel, P.J., "C: How to program." 7th edition, Prentice-Hall, Inc., 2012.**

THANK YOU

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