

 visual programming

# Arithmetic Operators



Bachelor of Information Systems  
Institut Teknologi Del



# Learning Objective(s)

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*This material should address the following question(s).*

- What are arithmetic operators?
- How to use the arithmetic operators?

# Discussion Points

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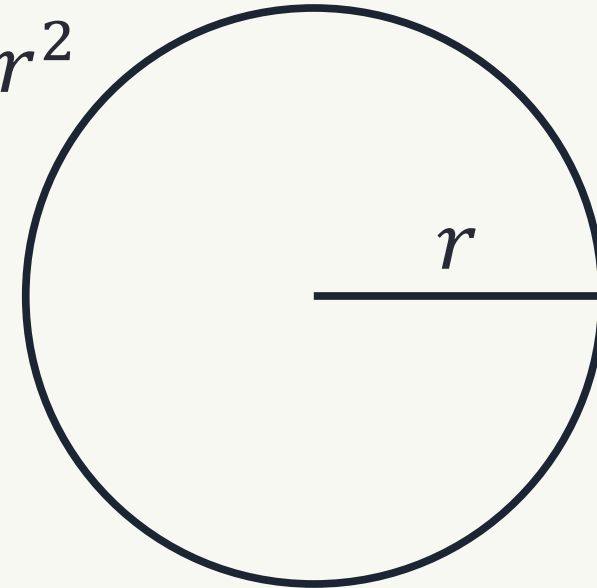
**Arithmetic** Operators:  
The Core Concepts.



# Problem

- In the circle area calculation, there are three **operations**, using three distinct **operators** on the three values.
- The three operators are:
  - $\times$  multiplication;
  - $^$  exponential, and
  - $=$  assignment.

$$A = \pi r^2$$



using **assignment** operator.

assignment operation

using **exponential** operator.

exponential operation

$$A = \pi r^2$$

multiplication operation

using **multiplication** operator.



# Question

Both multiplication and exponential are arithmetic operators.  
What are **arithmetic** operators?

# Definition

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***Arithmetic operators*** are operators used to operate numerical value (number).

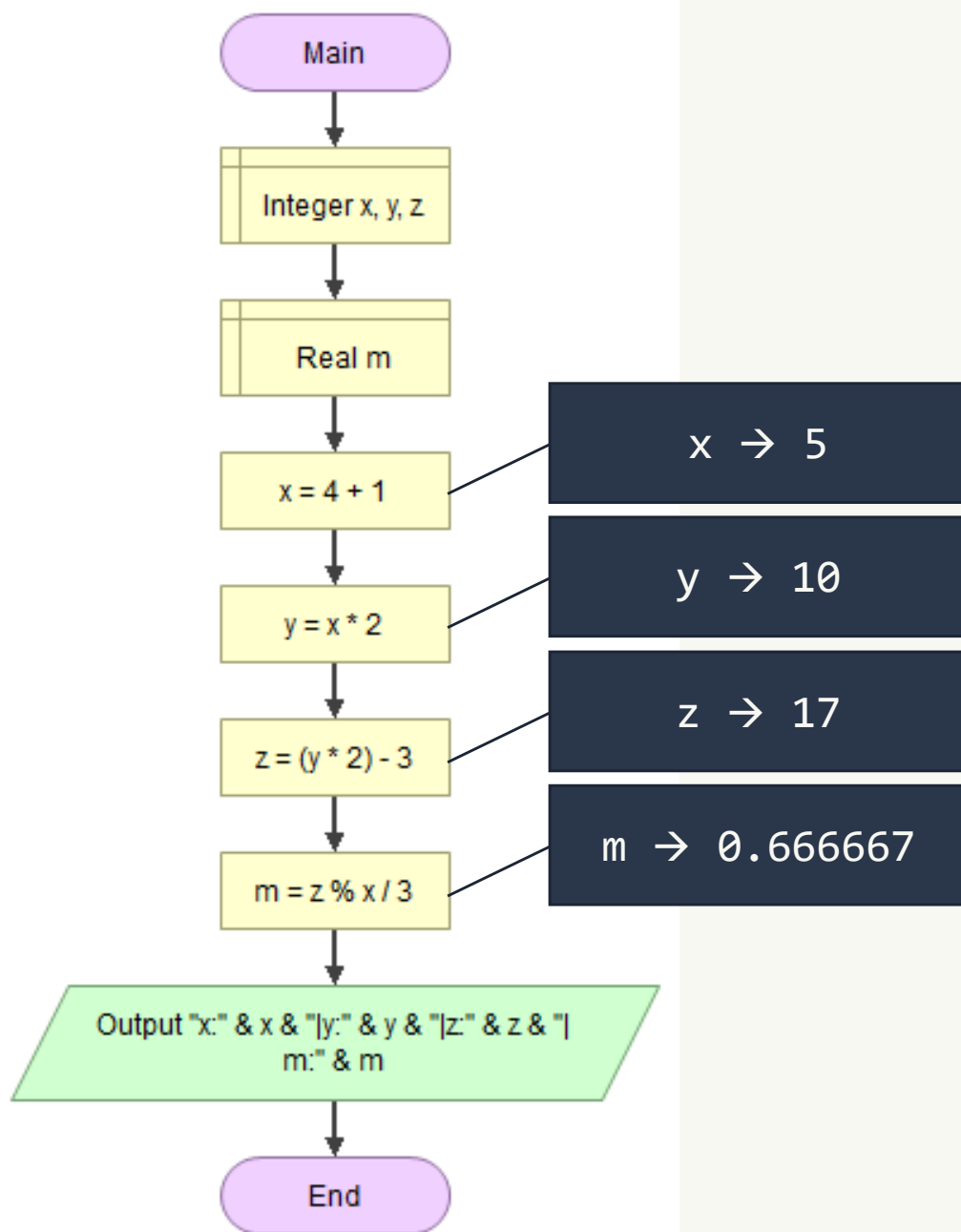
*These operators produce a numerical value.*



# Arithmetic Operators

No	Operator	C-Family	BASIC Family
1.	addition	+	+
2.	subtraction	-	-
3.	multiplication	*	*
4.	division	/	/
5.	modulo	%	mod
6.	exponential	<i>not applicable</i>	^
7.	negation	-	-





# Hands On

- It is possible to have multiple operations in a one expression.



# Question

In the case of **multiple operations** in a single expression.

When the involved operators are in different types,  
then which operator **precedes** first?

We will discuss this later.

# Final Thoughts.



# Conclusion

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1. Arithmetic operators operate numerical values.
2. It is possible to have multiple operations in one expression.
  - Operator precedence?



# References

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*Wassberg, J. (2020). Computer Programming for Absolute Beginners. Packt.*

*Operators – Flowgorithm*

<http://www.flowgorithm.org/documentation/operators.html>



– EOF –



# Course Lecturer

Mario E. S. Simaremare  
Institut Teknologi Del



@simaremare



@dasar-pemrograman



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