Key Terms

++operator - an operator used to decrement a variable.

--operator - an operator used to decrement a variable.

arithmetic operators - operators used in mathematical calculations, such as addition, subtraction, division, or multiplication

assignment operator - used to change the value of a variable to the left of an equal

compound operators - special operators that provide a shorthand notation for modifying variables

constructor - a function that creates an object based on the rules of the object’s class.

Decrementing - subtracting 1 from the value of a variable.

dot operator (.) - a period use dot associate a member with a method or class.

“E” notation - a method for expressing very large and very small numeric values

Expression - the portion of a programming statement on the right side of an assignment operator.

Incrementing - adding one to the value of a variable.

Member - a method defined as part of a class of objects.

Modulus operator - an arithmetic operator that returns the remainder value in a divide operation.

Order of operations - the order in which a mathematical expression is evaluated.

Overflow - a condition that occurs when a variable becomes too large for its defined type.

Overloading - using a constructor in more than one way.

Promotion - a process of temporarily changing a variable of one type to perform a math operation.

Seed - a value given to a randomizing class to use as starting point when generating a random number.

Truncate - the loss of precision or data values because a variable is larger or smaller than the field defined for the value.

Underflow - a condition that occurs when a variable is too small for its defined type.

Casting

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**Compound Operator Example Longhand Equivalent**

+= i += 1; i = i + 1;

-= j-= 12; j = j - 12;

\*= z\*= 5.25; z = z\* 5.25;

/= w /= 2; w = w / 2;

%= d %= 3; d = d % 3;

Arithmetic Operator

**Symbol Operation Example Read as…**

+ Addition 3 + 8 three plus eight

- Subtraction 7 - 2 seven minus two

\* Multiplication 4 \* 9 four times nine

/ Division 6 / 2 six divided by two

% Modulus 67 % 3 seven modulo three