Rio Salado College

Key Terms and Concepts – Lesson 2

CIS163AA – Java Programming – Level 1

Term	Definition
Arithmetic operators	**Arithmetic operators** are used to perform calculations with values.
Assignment	An **assignment** is the act of providing a value for a variable.
Assignment operator	The **assignment operator** is the equal sign (=); any value to the right of the equal sign is assigned to the variable on the left of the equal sign.
Associativity	**Associativity** refers to the order in which operands are used with operators.
Binary operators	**Binary operators** require two operands.
Blank final	A **blank final** is a final variable that has not yet been assigned a value.
Boolean variable	A **boolean variable** can hold only one of two values – true or false.
Byte	The **byte** data type holds very small integers, from -128 to 127.
Camel casing	**Camel casing** is a style in which an identifier begins with a lowercase letter and subsequent words within the identifier are capitalized.
Cast operator	A **cast operator** performs an explicit type conversion; it is created by placing the desired result type in parentheses before the expression to be converted.
Char	The **char** data type is used to hold any single character.
Comparison operator	A **comparison operator** is another name for a relational operator.
Concatenated	**Concatenated** describes values that are attached end to end.
Constant	**Constant** describes values that cannot be changed during the execution of an application.
Data type	An item's **data type** describes the type of data that can be stored there, how much memory the item occupies, and what types of operations can be performed on the data.
Double	A **double** data type can hold a floating-point value of up to 14 or 15 significant digits of accuracy.
Double-precision floating-point number	A **double-precision floating-point number** is stored in a double.

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Echoing the input	**Echoing the input** means to repeat the user's entry as output so the user can visually confirm the entry's accuracy.
Escape sequence	An **escape sequence** begins with a backslash followed by a character; the pair represents a single character.
Explicit conversion	An **explicit conversion** is the data type transformation caused using a cast operator.
Float	A **float** data type can hold a floating-point value of up to six or seven significant digits of accuracy.
Floating-point	A **floating-point** number contains decimal positions.
Floating-point division	**Floating-point division** is the operation in which two values are divided and either or both are floating-point values.
Garbage value	A **garbage value** is the unknown value stored in an uninitialized variable.
Implicit conversion	An **implicit conversion** is the automatic transformation of one data type to another.
Initialization	An **initialization** is an assignment made when you declare a variable.
Input dialog box	An **input dialog box** asks a question and provides a text field in which the user can enter a response.
Int	The data type **int** is used to declare variables and constants that store integers.
Integer	An **integer** is a whole number without decimal places.
Integer division	**Integer division** is the operation in which two values are divided and both are integers; the result contains no fractional part.
Keyboard buffer	The **keyboard buffer** is a small area of memory where keystrokes are stored before they are retrieved into a program.
Literal constant	A **literal constant** is a value that is taken literally at each use.
Long	The **long** data type holds very large integers, from -9,223,372,036,854,775,808 to
Lvalue	An **lvalue** is an expression that can appear on the left side of an assignment statement.

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Magic number	A **magic number** is a value that does not have immediate, intuitive meaning or a number that cannot be explained without additional knowledge. Unnamed constants are magic numbers.
Modulus operator	The **modulus operator**, sometimes abbreviated as mod, is an alternate name for the remainder operator.
Named constant	A **named constant** is a memory location whose value cannot change during program execution.
Null String	A **null String** is an empty String created by typing a set of quotes with nothing between them.
Numeric constant	A **numeric constant** is a number whose value is taken literally at each use.
Operand	An **operand** is a value used in an arithmetic statement.
Operator precedence	**Operator precedence** is the rules for the order in which parts of a mathematical expression are evaluated.
Parse confirm dialog box	To **parse** means to break into component parts. A **confirm dialog box** displays the options Yes,
Primitive type	A **primitive type** is a simple data type. Java's primitive types are byte, short, int, long, float, double, char, and boolean.
Promotion	**Promotion** is an implicit conversion.
Prompt	A **prompt** is a message that requests and describes user input.
Reference types	**Reference types** are complex data types that are constructed from primitive types.
Relational operator	A **relational operator** compares two items; an expression that contains a relational operator has a Boolean value.
Remainder operator	The **remainder operator** is the percent sign; when it is used with two integers, the result is an integer with the value of the remainder after division takes place.
Rvalue	An **rvalue** is an expression that can appear only on the right side of an assignment statement.
Scientific notation	**Scientific notation** is a display format that more conveniently expresses large or small numeric values; a multidigit number is converted to a single-digit number and multiplied by 10 to a power.
Scope	The **scope** of a data item is the area in which it is visible to a program and in which you can refer to it using its simple identifier.

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Short	The **short** data type holds small integers, from -32,768 to 32,767.
Showconfirmdia1og()	**showConfirmDia1og()** method in the JOptionPane class.
Showinputdialog()	The **showInputDialog()** method creates an input dialog box.
Significant digits	The term **significant digits** refers to the mathematical accuracy of a value.
Single-precision floating-point number	A **single-precision floating-point number** is stored in a float.
String	**String** is a built-in Java class that provides you with the means for storing and manipulating character strings.
Strongly typed language	A **strongly typed language** is one in which all variables must be declared before they can be used.
Symbolic constant final	A **symbolic constant** is a named constant. The keyword **final** precedes named constant declarations.
Token	A **token** is a unit of data; the Scanner class separates input into tokens.
Type casting	**Type casting** forces a value of one data type to be used as a value of another type.
Type-ahead buffer consume	The **type-ahead buffer** is the keyboard buffer. To **consume** an entry is to retrieve and discard it without using it.
Type-wrapper classes	**Type-wrapper classes**, contained in the java . 1ang package, include methods that can process primitive type values.
Unary cast operator	The **unary cast operator** is a more complete name for the cast operator that performs explicit conversions.
Unary operator standard input device	A **unary operator** uses only one operand. The **standard input device** normally is the keyboard.
Unifying type	A **unifying type** is a single data type to which all operands in an expression are converted.
Unnamed constant	An **unnamed constant** has no identifier associated with it.
Variable	A **variable** is a named memory location that you can use to store a value.
Variable declaration	A **variable declaration** is a statement that reserves a named memory location.

Note: Please see key terms in the textbooks for examples of some of the terms.