

# AP CS: Lesson 2: Expressions & Variables

Name: \_\_\_\_\_ Period: \_\_\_\_\_

## Java Syntax:

### Solving Expressions:

Integer math only results in integer values – eliminating any fractional values i.e.  $5 / 4 \rightarrow 2$

Real Numbers (double) keep fractional precision i.e.  $2.5 * 3.5 \rightarrow 8.75$

Strings can be appended (concatenated) with a plus "+" i.e. "bird" + "dog"  $\rightarrow$  "birddog"

Precedence order (all numbers and strings): ( ) before \* / % before + - , then left to right

Integer and Real Number results in a Real Number (double) i.e.  $2.5 * 3 \rightarrow 7.5$

String and any number results in a String i.e. "Area " + 51  $\rightarrow$  "Area 51"

### Primitive Types:

Declarations:

```
int name = <value>; // create an Integer
```

```
double name = <value>; // create an Double – real numbers
```

Assignment:

```
name = <value>; // i.e. age = 17;
```

```
name = name + 1; // i.e. birthdayAge = age + 1;
```

### Class Notes:

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## Exit Ticket

**(Please complete, record your name, and turn in, it will be returned to you next class):**

1. I understand Creating Static Methods:  Yes,  Somewhat,  No
2. I understand Structural Decomposition:  Yes,  Somewhat,  No
3. I understand solving Expressions with Java types:  Yes,  Somewhat,  No
4. I understand creating & updating Variables:  Yes,  Somewhat,  No

Additional comments, especially if you answered "No" to any of the above what would you like to more details on? Thanks

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