What does this do?

```
k = i;
i = j;
j = k;
```

Visualize

using Java Visualizer

Comments

- // until end of the line
- /* until

  */

- /** Javadoc

  */

Puzzle

(8 + /*- 3*/ 3 * 2) / 2 /*+*/ -17 //23 + 14 - 2

Program 1 Assigned

Read the documentation

Work individually

Puzzle

```
int i = 5, j = 2, k;
j += 3;
k = i++ + --j;
```

After this executes, what are the values in i, j and k?

Increment && Decrement

i = i + 1;

i += 1;

i++;   ++i;

i = i -1;

i -= 2;

--i; i--;

Puzzle

```java
String str1 = "Hello";
String str2 = new String("Hello");

boolean equal = str1 == str2;
```

java.lang.Math

```java
int age1 = 5, age2 = 25;


int result = Math.max( age1, age2);
double numInts = Math.pow( 2, 32);
double root = Math.sqrt( 16);
```

Named Constants

Magic numbers: numbers other than 0 or 1 that show up in code and somehow the code runs.

final int MAX_ROWS = 25;

final char CELL_ALIVE = '@';

boolean Data Type

```
boolean sunnyDay;
sunnyDay = true;
```

possible values of boolean are
true and **false**

boolean operators

== != < <= > >=

int n = 6;

boolean result = (n != 5);

java.lang.String

String strA = "This is a string"; //String literal

int length = strA.length();

char firstInitial = 'J';   //char literal

char aChar = strA.charAt(3);