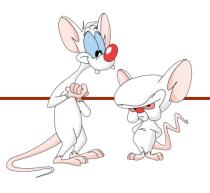
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AWeskyl-2 Javas edu assist pro

Giulia Alberini, Fall 2020

WHAT ARE WE GOING TO DO IN THIS VIDEO?



- More on Java syntaxignment Project Exam Help
- Scope of variables

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OPERATION-ASSIGNMENT +=, -=, *=, /=

The following two blocks are equivalent
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The same notation can be used for subtraction, multiplication, and division.

POST INCREMENT (DECREMENT)

- Post-increment: X+ spignment Project Exam Help
- Post-decrement: x https://eduassistpro.github.io/

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You can use these notations as statements as well as part of a more complex expression.

POST INCREMENT (DECREMENT)

The following istatement Recirc teleprimal lend p

```
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```

X++;

$$x - -;$$
 $x = x - 1;$

POST INCREMENT (DECREMENT)

When used as part of expressions, the increment happens after the statement is executed.

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The following blacks we equil edu_assist_pro

```
int x = 5;
int y = 2*x++;
```

```
int x = 5;
int y = 2*x;
x = x + 1;
```

RECOMMENDATION

Use ++ or -- by themselves. Don't write code with pre/post increntification of the pressions. It makes the cod https://eduassistpro.github.io/



IF-ELSE IF-ELSE

- Only one of these blocks will Project Exam Help
- As soon as one block is executed. Chat edu_assist_pro the remaining will be skipped
- You can have as many else ifs as you want
- The final else is not required.

```
get executed. Order matthttps://eduassistpro.github.io/ "Positive");
                                            .println("Negative");
                              } else {
                                 System.out.println("Zero");
```

COMMON MISTAKE

```
if (x Assignment Project Exam Help
System. ive");
https://eduassistpro.github.io/
} else {
System.out.printing edu_assist_pro_");
}
```

Compile-time error!

COMMON MISTAKE

```
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Systehttps://eduassistpro.githubeio/;

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```

The statements inside the block will get executed no matter how the condition evaluates.

WHILE LOOP – SYNTAX

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The block of code is repeatedly executed as long as the condition evaluates to true.

FOR LOOP – GENERAL STRUCTURE

```
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for (statement1; n; statement2) {
    // loop body https://eduassistpro.github.io/
    Add WeChat edu_assist_pro
```

- Any or all of the above statement/expression can be left out.
- The semicolons always need to be there.

Assignment Project Exam Help for (ihttps://eduassistpro.github.io/ // some code Add WeChat edu_assist_pro }

```
Assignment Project Exam Help

for (ihttps://eduassistpro.github.io/
// some code
Add WeChat edu_assist_pro
}
```

The *initializer* is executed once, before the loop starts.

```
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for (ihttps://eduassistpro.github.io/
// some code
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}
```

The *condition* is checked at the beginning of each iteration. If it evaluates to false, the loop ends. Otherwise, the body is repeated.

```
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for (ihttps://eduassistpro.github)io/
// some code
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}
```

The *update* is executed at the end of each iteration.

TO RECAP

1)/The initializionimexecutoject Exam Help

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2) The condition is checked. e body is Add WeChat edu_assist_pro executed. Otherwise, the

3) The update is executed and we go back to step 2).

VOID METHODS

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public https://eduassistpro.github.io/

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When used as part of a method header, the keyword void tells the computer that the method does not return anything.

VALUE METHODS

Compare to void methods, value methods differ in 2 ways:

- They declare the type of the return value Assignment Project Exam Help
- They use at least on

ovide a return value.

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```
public static doAdde We Chat edu_assist_eproadius) {
   double area = Math.PI * Math.pow(radius, 2.0);
   return area;
}
```

■ A call to this method could be: double a = circleArea(2.5);

DEAD CODE

Code that appear after a return statement, or somewhere where it can never be executed, is called **dead code**.

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If your program con ll receive a compile-

time error: "Unreachttps://eduassistpro.github.io/

```
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public static double circle le radius) {

  double area = Math.PI * Math.pow(radius, 2.0);

  return area;

  System.out.println("It will never print");
}
```

OVERLOADING

Having more than one method with the same name is called overloading. Assignment Project Exam Help

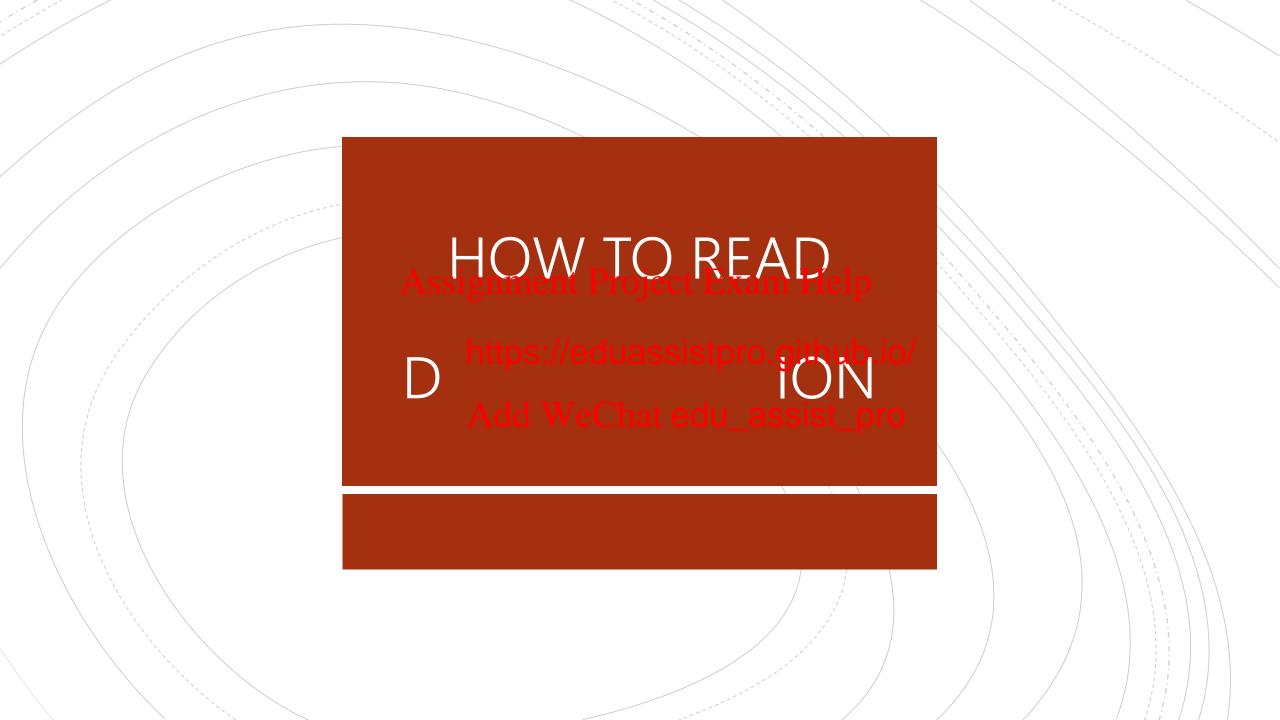
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It is legal as long as the methods edu_assist parameters.

Java will know, based on the inputs, which method has been called.

RECAP ON METHODS – GENERAL FORM

- **Keywords (e.g.,** public static)
 - Assignment Project Exam Help
- Return type (e.g. v
- Name of the meth https://eduassistpro.github.io/
- Parentheses with parameters d
- Body of the method (the instructions)
 Written between curly brackets and including at least one return statement if not void.



DOCUMENTATION

The Java Application Programming Interface (API) is a list of all classes that are parignature of the classes of the cla

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You can visit the above link if yo ow more about library or methods you'd like to use.

E.g. All about the Math library:

https://docs.oracle.com/javase/8/docs/api/java/lang/Math.html

Assignment Project Exam Help https://eduassistpro.github.io/ Add WeChat edu_assist_pro

static double

Assignment Project Exam Help

https://eduassistpro.githubfio/double value.

static double

Assignment Project Exam Help

https://eduassistpro.githubfio/double value.

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It specifies the name of the method

static double

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https://eduassistpro.githubfio/double value.

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The number and type of input parameters

static double

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https://eduassistpro.githubfio/double value.

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Which together they constitute the method's signature

static double

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https://eduassistpro.githubfio/double value.

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The **return type** of the method

static double

Assignment Project Exam Help

https://eduassistpro.githubfio/double value.

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Keyword that tell you how the method can be called. We'll find out more about this in the following weeks, so don't worry about it for now.

static double

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https://eduassistpro.githubfio/double value.

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And a description of what the method does.

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EXAMPLE OF OVERLOADING

Note that Math.abs() is overloaded

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SCOPE OF A VARIABLE

- A variable only exists inside the block in which it is declared.

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- It does not exist an https://eduassistpro.githlecis/

- When inside a block,
 - a variable *starts* to exists when it is declared, and
 - it *ends* to exists at the blocks in which it was declared ends.

```
int x = 5;
if (x > 0) {
      int y = 0;
      Assignment Project Exam Help int y = x;
} else {
                 https://eduassistpro.github.io/
System.out.print
                 Add WeChat edu_assist_pro
int x = 5;
int y;
if (x > 0) {
      y = 0;
} else {
      y = x;
```

System.out.println(y);

```
int x = 2;
int y = 3;
if (x < y) {
   x = x + y;
   int z = 5; Assignment Project Exam Help
   y = z * x;
                    https://eduassistpro.github.io/
System.out.println(
                    Add WeChat edu_assist_pro
int x = 2;
int y = 3;
int z = 0;
if (x < y) {
   x = x + y;
   z = 5;
   y = z * x;
System.out.println(x + " " + y + " " + z);
```





```
for (int i = 0; i < 5; i++) {

System.ouAssignmentiProject Exam Help
}
System.out.println https://eduassistpro.github.io/
```

```
int i;
for (i = 0; i < 5; i++) {
         System.out.println(i);
}
System.out.println(i);</pre>
```



```
int x = 5;
boolean isSnowing = false;
if (x > 0 || isSnowing) {
        System.out.println(x);
}
```



RECOMMENDED EXERCISES

• Look at code you have previously written in Python (or in any other programmin s numbers (like integers or double https://eduassistpro.githubtienents, loops, and functions. Translate this code assist_pro



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In the next g about
primitive https://eduassistpro.github.io/