

Exercise on Lesson 4

Unless otherwise directed in the following problems, state what is printed. Some of these problems may have incorrect syntax and in those cases you should answer that the code would not compile.

1.

```
int h = 103;
int p = 5;
System.out.println(++h + p);
System.out.println(h);
```

109
104

2. Give three code examples of how to increment the integer *j* by 1.

```
j += 1;
j++;
++j;
```

3.

```
double def;
double f = 1992.37;
def = f;
System.out.println(def);
```

1992.37

4. Write a **single** line of code that will print the integer variable *zulu* and **then** decrement its value by 1.

```
System.out.println( zulu-- );
```

5.

```
int a = 100;
int b = 200;
b/=a;
System.out.println(b + 1);
```

3

6. Write a **single** line of code that uses the compound operator, `-=`, to subtract *p-30* from the integer value *v* and store the result back in *v*.

```
v -= p - 30;
```

7. Write a single line of code that does the same thing as #6 but without using -=.

```
v = v - ( p - 30 );
```

8. `int p = 40;`
`int q = 4;`
`System.out.println(2 + 8 * q / 2 - p);`

-22

9. `int sd = 12;`
`int x = 4;`
`System.out.println(sd%(++x));`
`System.out.println(x);`

2

5

10. `int g;`
`3 = g;`
`System.out.println(++g*79);`
What is the result?

The code will not compile.

11. On a single line of code declare *m*, *b*, and *f* to be *double* and on that same line initialize them all to be 3.14.

```
double m = 3.14, b = 3.14, f = 3.14;
```

12. On a single line of code declare *x*, *y*, and *z* all to be of integer type.

```
int x, y, z;
```

13. `int m = 36;`
`int j = 5;`
`m = m / j; // new m is old m divided by j`
`System.out.println(m);`
What's printed?

7

14. `System.out.println(3/4 + 5*2/33 - 3 + 8*3);`
What's printed?

21

15. What is the assignment operator?

=

16. Write a statement that stores the remainder of dividing the variable i by j in a variable named k .

$k = i \% j;$

17. $\text{int } j = 2;$
 $\text{System.out.println}(7\%3 + j++ + (j - 2));$

4

18. Show three different ways to decrement the variable j .

$j -= 1;$
 $j--;$
 $--j;$