

Pencil And Paper Assignment For Lesson 2

1. Consider the following if...then logic:
 if(age > 65) socialSecurityStatus = "eligible";
 else socialSecurityStatus = "ineligible";

Rewrite this (pseudo) code using the Java ternary operator.

2. Suppose a String s is initialized by
 String s = "a friendly face";

- a. Compute the value of the expression

`s.charAt(2);`

- b. What is the value of

`s.length()`?

- c. What is the value of

`s.substring(2,9)?`

`s.substring(4)?`

3. Write a Java expression that computes each of the following:
 - a. Given the radius `r` of a circle, compute the area of the circle, and store it in a variable `A`.
 - b. Given the length `len` and width `wid` of a rectangle, compute the length of the diagonal of the rectangle, and store it in a variable `diag`.

4. Compute the following (without writing any Java code) and indicate the type of your answer. (Example: `4 * 3 + 2` equals 14, of type `int`.)

a. `3 * 5 / 9 % 2`

b. `4 ^ 3 & 5`

c. `13 >> 2 << 2 ^ 4`

d. `32 | 16/3 >> 2 & 5.`

5. You are reviewing some old Java programs in your company's IT department and you read the following assignment statement in some abandoned code:

`int a = (b = 5);`

Is the statement legal (i.e. would it compile)? If so, what value is assigned to the variable `a`? Explain.

Answer in : <https://introcs.cs.princeton.edu/java/11precedence/>