If…Else Reading Questions **Name**_____
Date_____**Per**____

<Note that B6 and C5 involve using handouts that are not available to you. You do not need to do these sections. You do not need to read sections F, I, or J at all.>

1. There are three control structures: S_____, S_____(if, if…else), and I_____ (while, do…while, for). Define each of these terms in your own words.

a) S_____ =

b) S_____ =

c) I_____ =

2. Bohm and Jacopini came up with several rules related to programming, that were meant to lead "to great productivity gains in the field of software engineering." Explain why you think following rules would be better for computer programming progress, versus letting everyone program how they would like.

3. Define algorithm in your own words.

4. a) What does pseudocode look like, compared to your real code?

b) What are some advantages to writing pseudocode?

5. Fill in the table for the relational operators (left) and logical operators (right top) and unary operator (right bottom).

Relational Operator	Meaning	Logical Operator	Meaning
<			AND
< =			OR
>			NOT
> =		Unary Operator	Meaning
= =		!	
! =			

6. The result of a relational expression is what data type? _____

7. If OR is used, _____ values in an expression must be true to make the whole expression true. If AND is used, _____ values must be true to make the whole expression true.

8. Consider the following code fragment to answer the questions below.

a) What part(s) are expressions?

b) What part(s) are statements?

c) If input is 3, then what will *x* become?

```
if (input > 5)
    x = 10;
else
    x = 26;
```

9. If will only work on one statement at a time, unless a block of statements or compound statement are placed within what? _____

10. You may notice in code that you read (particularly for gaming) a section like this:

```
if (win)
    System.out.println("You win!");
```

What data type must win be? _____ Fill in the blank to complete the following code, using the identifier called win.

```
if ( _____ )
    System.out.println("Sorry, you lose.");
```

DeMorgan's Laws Reading Question (only read sections A and B)

11. How is DeMorgan's like the Distributive Property (or Postulate) in mathematics? Give an example to help you explain.