

AP Computer Science A

Name: \_\_\_\_\_ Score: \_\_\_\_\_

1. Choosing which code to run based on a condition is called...

- ☐ selection
- ☐ repetition
- ☐ sequence
- ☐ an error

2. Which operator tests whether two values are equal?

- ☐ ==
- ☐ =
- ☐ !=
- ☐ <=

3. In an if-else statement, how many of the two branches run?

- ☐ exactly one
- ☐ both
- ☐ neither
- ☐ it depends on braces

4. In an else-if ladder, which condition's block runs?

- ☐ the first one that is true
- ☐ the last one that is true
- ☐ all true ones
- ☐ the shortest one

5. a && b is true when...

- ☐ both a and b are true
- ☐ at least one is true
- ☐ neither is true
- ☐ a is false

6. Outer loop runs 3 times, inner runs 3 times each. How many times does the inner body run?

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7. With `int age = 18;`, the expression `age > 18` is true.

☐ True      ☐ False

8. `int i=1, sum=0; while (i<=5){ sum+=i; i++; }` What is sum at the end?

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9. How many times does the body of `for (int i = 0; i < 5; i++)` run?

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10. In nested loops, the inner loop runs fully for every single pass of the outer loop.

☐ True      ☐ False

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### 1. **selection**

Selection (if) picks a path; repetition (loops) repeats a block.

### 2. **==**

== tests equality; = assigns.

### 3. **exactly one**

Exactly one branch runs based on the condition.

### 4. **the first one that is true**

Java takes the first true condition top to bottom.

### 5. **both a and b are true**

&& (AND) needs both operands true.

### 6. **9**

$3 \times 3 = 9$ .

### 7. **False**

18 is not greater than 18;  $\text{age} \geq 18$  would be true.

### 8. **15**

$1+2+3+4+5 = 15$ .

### 9. **5**

i takes  $0, 1, 2, 3, 4 \rightarrow 5$  passes.

### 10. **True**

That's why the inner body runs  $\text{outer} \times \text{inner}$  times.