**Level 1**

2. A. The index is the point at which a loop is at, in terms of numbers, if the loop has gone through 9 times and is on its tenth, then it has an index of 10 at the point in time.

B. When it has looped the specified number of times.

C. The “for” loop is different from “do” loops because “do” loops will loop one time whereas a “for” loop goes on until it has looped a certain number of times. The “while” loop will loop for an infinite number of times until the statement becomes false.

3. A. x == y (x is equal to y)

x != y (x is not equal to y)

x< y (x is less than y)

x > y (x is greater than y)

x <= y (x is less than or equal to y)

x >= y (x is greater than or equal to y)

B. The program does the same operation as the statement with “<”, but it instead checks if the value is equal to OR less than.

4. A. The “++” operator repeatedly adds 1 to the to the given value, and =+1 makes the program do ans = ans + 1.

B. -Program stops working correctly.

**Level 2**

2. You could make multiple if statements that have different effects on different LEDs based on the input/what the if statement checks.