1
Loop Structures are used to perform tasks such as summing a set of numbers as they are entered by the user or repeatedly prompting the user for a value until correct data is entered.

2
In the do-while statement the condition is not validated until after the execution of the first loop. However, the condition of the while loop in a boolean expression, which is evaluated before the statement is executed.
3
Review: Prompter
4

a. If the condition of the while loop never becomes false, the result is an infinite loop- one which continues forever.
b. - a syntax error
   - a logic error
c. An overflow occurs when there are not enough bits to store a number. An overflow changes the sign of the number stored.

5
It will run 60 times.

6
No matter what our initial value of x, it will not make the loop infinite. This is because the value of x will eventually have to become 120 or greater, causing the loop to break/terminate.
7
Counters are useful for keeping track of the number of times a user enters a value, makes a guess, or types a password. A counter should be initialized when it is declared and then incremented by a fixed amount. An accumulator is increased by varying amounts. Accumulators are often used to sum values. An accumulator is increased by varying amounts.
8

```
for (int i = 3; i <= 10; i++) {
total = i;
}
```

9
Whether the number of times the loop will be executed is fixed and whether the loop should execute at least once.
11

a. 10
b. my
c. my string.
d. MY STRING.
e. my string