Question 01 :

Sentinel-controlled loop:

public class Question01Sentinelcontrolledloop {  
 public static void main(String[] *args*) {  
 */\*  
 START  
 while loop: set sentinel condition: studentCounter != 10  
 -create a scanner to obtain each student's result from command window:  
 - if result == 1, pass + 1, if result == 0, failure + 1  
 - after entering student result, studentCounter + 1  
 -when studentCounter == 10, exit the loop  
  
 Print result:  
 -print all passes and failures  
 -if passes > 8, print Bonus to instructor!  
 END  
  
 \* \*/* Scanner scanner = new Scanner(System.*in*);  
 *// create a scanner* int passes = 0;  
 int failures = 0;  
 int studentCounter = 1;  
 *//initializing variables* System.*out*.println(**"Please enter 10 students' Result"**);  
  
  
 while (studentCounter != 11) {  
 System.*out*.println(**"Enter result (1 = pass, 2 = fail. -1 = exit system): Please enter Student :"** + studentCounter + **" result :"**);  
 int result = scanner.nextInt();  
  
 if (result == 1) {  
 passes += 1;  
 }  
 if (result == 0) {  
 failures += 1;  
 }  
 studentCounter += 1;  
  
  
 }  
  
 System.*out*.printf(**"Passed: %d%nFailed: %d%n"**, passes, failures);  
  
 if (passes > 8) {  
 System.*out*.println(**"Bonus to instructor!"**);  
 } else {  
 System.*out*.println(**"No Bonus"**);  
 }  
  
  
 }  
}

for loop:

public class Question01Forloop {  
 public static void main(String[] *args*) {  
 */\*  
 START  
 For loop, condition: studentCounter <= 10  
 -create a scanner to obtain each student's result from command window:  
 - if result == 1, pass + 1, if result == 0, failure + 1  
 - after entering student result, studentCounter + 1  
 -when studentCounter == 10, exit the loop  
  
 Print result:  
 -print all passes and failures  
 -if passes > 8, print Bonus to instructor!  
 END  
 \* \*/* Scanner scanner = new Scanner(System.*in*);  
 *// create a scanner* int passes = 0;  
 int failures = 0;  
  
 *//initializing variables* for (int studentCounter = 1; studentCounter <= 10; studentCounter++) {  
 System.*out*.println(**"Enter result (1 = pass, 2 = fail): "**);  
 int result = scanner.nextInt();  
 if (result == 1) {  
 passes += 1;  
 }  
 if (result == 0) {  
 failures += 1;  
 }  
 }  
 System.*out*.printf(**"Passed: %d%nFailed: %d%n"**,passes,failures);  
  
 if (passes > 8){  
 System.*out*.println(**"Bonus to instructor!"**);  
 }  
 else {  
 System.*out*.println(**"No Bonus"**);  
 }  
  
 }  
}

Question 02

While loop:

public class FindtheLargestNumber\_whileLoop {  
 public static void main(String[] *args*) {  
 Scanner input = new Scanner(System.*in*);  
 *// create a scanner to obtain units of each saleperson from command window* int counter = 1;  
 int largest = 0;  
 int number;  
 *// initialing variables  
 //while loop* while (counter <= 10){  
 System.*out*.println(**"Enter SalePerson: "** + counter + **"'s units: "**);  
 int currentNumber = input.nextInt();  
 *// obtain current units* number = currentNumber;  
 if (number > largest){  
 largest = number;  
 }  
 *// compare current units and largest units, save latest largest unit in variable [largest]* counter += 1;  
 *//increment studentCounter so loop eventually terminates* }  
  
 System.*out*.printf(**"the largest units is %d"**, largest);  
  
  
 }  
}

output :



For loop:

public class FindtheLargestNumber\_ForLoop {  
 public static void main(String[] *args*) {  
 Scanner input = new Scanner(System.*in*);  
 *// create a scanner to obtain units of each saleperson from command window* int largest = 0;  
  
 *// initialing variables  
 // for loop* for (int counter = 1; counter <= 10; counter++) {  
 System.*out*.println(**"Enter SalePerson: "** + counter + **"'s units: "**);  
  
 int number = input.nextInt();  
 if (number > largest) {  
 largest = number;  
 }  
  
  
  
 }  
 System.*out*.printf(**"the largest units is %d"**, largest);  
  
  
 }  
}

output:

