1. What gets printed? Please show all the output as it will appear, OR indicate “NO OUTPUT”, OR show the first 3 lines of output followed by “INFINITE LOOP.”

```java
int size = 10;
do {
    System.out.print(size + " => ");
    int category = size / 3;
    switch(category) {
        case 0:
            System.out.println("X");
            // note: no break here
        case 1:
            System.out.println("S");
            break;
        case 2:
            System.out.println("M");
            break;
        case 3:
            System.out.println("L");
    }
    size = size - 2;
} while (size >= 2);
```

2. Suppose your code has already calculated the value of `num` as the number of dimes to give out as change. Rewrite the following output statement using the conditional operator, so that it prints “1 Dime” instead of “1 Dimes” in cases where `num` = 1.

```java
System.out.println("You change is " + num + "Dimes");
```

```java
System.out.println("You change is " + num + "Dime" + (num != 1? "s" : ""));
```
1. What gets printed? Please show all the output as it will appear, OR indicate “NO OUTPUT”, OR show the first 3 lines of output followed by “INFINITE LOOP.”

```java
int a = 8;
do {
    System.out.println(a);
    a--;
} while (a < 4);
```

```
String msg = “Keep out Russian spies”;
for (int a = 5; a <= 17; a = a + 3)
    System.out.print(msg.charAt(a);
```

2. Rewrite the following code to use the conditional operator to compute the value of the variable `outcome` (instead of if/else):

```java
int a = rand.nextInt(100);
int b = rand.nextInt(100);
int number = scan.nextInt();
```

```java
int outcome;
if  (number == a + b)
    outcome = 1;
else
    outcome = 0;
```

```
int outcome = (number == a + b? 1: 0);
```