

LOOPS

1. Determine the exact output for the following code segment:

```
for (int i=1; i<=10; i++)
    System.out.println(i*i);
```

2. Determine the exact output for the following code segment:

```
char letter='R';
System.out.print("MTV plays lots of ");
for (int mtv=0; mtv<=2; mtv++)
{
    System.out.print(letter);
    letter +=15;
}
```

3. Which of the following will print the even numbers beginning with 2 and ending with 20 – there can be more than one solution:

- a. **for** (**int** a=2; a<20; a+=2)
 System.out.println(a);
- b. **for** (**int** b=0; b<20; b+=2)
 System.out.println(b+2);
- c. **for** (**int** c=2; c<=20; c++)
 System.out.println(c);
- d. **for** (**int** d=1; d<=20; d++)
 if (d%2 == 0)
 System.out.println(d);

For exercises 4-8, determine the exact output for the following code segments. If an infinite loop exists, state “infinite loop” and give only the first three iterations.

4. **int** k=0;
for (**int** m= -2; m<=1; m++)
{
 k=k+m*2;
 System.out.println(4*k);
}

```

5.   for (int i=1; i<=7; i++)
    {
        for (int j=i; j<=7; j++)
            System.out.print('$');
        System.out.println();
    }

6.   for (int m=1; m<5; m++)
    {
        for (int n=5; n<=20; n+=5)
            if ((m+n)%3 == 0)
                System.out.print(m + " plus " + n + " ");
        System.out.println();
    }

7.   int a=1;
do
{
    System.out.println(a + " " + 15%a);
    a++;
} while (15/a != 3);

8.   int m=1;
do
{
    System.out.println(m + " " + (m-1));
    m+=2;
} while (m != 10);

```