Arrays

Workbook

Answer the following

1. What would be the output of the below code?

```
1  class SampleCodeA {
2      public static void main(String[] args) {
3          int[] a = new int[10];
4          System.out.println(a.length);
5          System.out.println(a[5]);
6      }
7  }
```

2. What would be the output of the below code?

```
1  class SampleCodeB {
2      public static void main(String[] args) {
3          int[] a = new int[10];
4          for (int i = 0; i < 10; i++) {
5              a[i] = i * i;
6          }
7          for (int i = 0; i < 10; i++) {
8              System.out.println(a[i]);
9          }
10     }
11 }
```

3. What would be the output of the below code?

```
1  class SampleCodeC {
2      public static void main(String[] args) {
3          int[] a = {10, 20, 30, 40, 50};
4          int[] b = a;
5          for (int i = 0; i < 5; i++) {
6              System.out.println(b[i]);
```

```
7            }
8        }
9  }
```

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4. What would be the output of the below code and explain your understanding?

```
1  class SampleCodeD {
2      public static int xyz(int[] b) {
3          int r = 0;
4          for (int i = 0; i < b.length; i++) {
5              if (b[i] % 2 == 0)
6                  r += b[i];
7          }
8          return r;
9      }
10     public static void main(String[] args) {
11         int[] a = {33, 44, 54, 65, 67, 93, 246, 84, 20, 10, 26};
12         System.out.println(xyz(a));
13     }
14 }
```

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5. What would be the output of the below code?

```
1  class SampleCodeE {
2      public static void main(String[] args) {
3          int table[][] = new int[3][3];
4          for(int i = 0; i < 3; i++) {
5              for(int j = 0; j < 3; j++) {
6                  if (j == i)
7                      table[i][j] = 1;
8                  else
9                      table[i][j] = 0;
10             }
11         }
12         for (int i = 0; i < 3; i++) {
13             for (int j = 0; j < 3; i++) {
14                 System.out.print(table[i][j] + " ");
```

```
15            }
16            System.out.println();
17        }
18    }
19 }
```

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6. What would be the output of the below code?

```
1 class SampleCodeF {
2     public static void main(String[] args) {
3         int[][] a = {{1,2,3},{4,5,6},{7,8,9}};
4         for (int i = 0; i < a.length; i++) {
5             for (int j = 0; j < a.length; j++) {
6                 System.out.print(a[i][j] + " ");
7             }
8             System.out.println();
9         }
10    }
11 }
```

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7. What would be the output of the below code?

```
1 class SampleCodeG {
2     public static void main(String[] args) {
3         int[][] m = {{1},{1,2},{1,2,3},{1,2,3,4},{1,2,3,4,5}};
4         for (int i = 0; i < m.length; i++) {
5             for (int j = 0; j < m[i].length; j++) {
6                 System.out.print(m[i][j]);
7             }
8             System.out.println();
9         }
10    }
11 }
```

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8. What would be the output of the below code?

```java
class SampleCodeH {
    public static void main(String[] args) {
        int[][] a = {{11,12,13},{14,15,16},{17,18,19}};
        int sum = 0;
        for (int i = 0; i < a.length; i++) {
            for (int j = 0; j < a.length; j++) {
                if (i == j)
                    sum += a[i][j];
            }
        }
        System.out.println(sum);
    }
}
```