Java
Tracing Arrays Worksheet #1

Name -
Period -

Trace the following code segments and show the output in the console windows below.

1.

```
int[] scores = new int[3];
int sum = 0;

scores[0] = 8;
scores[1] = 5;
scores[2] = 7;

for (int i = 0; i < 3; i++)
   sum += scores[i];

System.out.println(sum / scores.length); // what prints? _________________
```

scores

0	1	2

i sum

2.

```
int[] scores = new int[5];
int sum = 0;

for (int i = 0; i < 5; i++)
{
   scores[i] = 2 *  i;
   sum += scores[i];
}

System.out.println(sum);                // what prints? ____________________
```

scores

0	1	2	3	4

i sum

3. Assume that the generated values for the sum of rolling two dice in this code segment are 5, 10, 8, and 7

```
final int NUM_ROLLS = 10;           //  max number of rolls
int num = 0;                        //  roll number
int[] rolls = new int[NUM_ROLLS];   //  dice rolls
boolean exitLoop = false;           //  flag variable to exit loop
boolean rolledSeven = false;        //  flag variable if 7 is rolled

while (!exitLoop)
{
   // rolling two dice
   rolls[num] = ((int) (Math.random() * 6) + 1) + ((int) (Math.random() * 6) + 1);

   if (rolls[num] == 7)
   {
      exitLoop = true;
      rolledSeven = true;
   }

   if (num > 9)
      exitLoop = true;

   num++;
}

if (rolledSeven)
   System.out.println("7 was rolled after " + num  + " rolls");


// what prints? ____________________________________
```

rolls

0	1	2	3	4	5	6	7	8	9

exitLoop rolledSeven num