Name _____ Period_____

1. The Dice class below prompts the user for two integers between 4 (inclusive) and 12 (inclusive). The numbers provided correspond to the number of sides on a given die. The dice simulates the rolling of the dice by generating a random number for each die in the range of 1 through the number provided. The random numbers generated are then printed to the console. Along with whether the values on the die are the same.

| Input for die 1 | Input for die 2 | Output |
|---|---|---|
| 5 | 10 | You rolled a 3 and a 10. false |
| 4 | 6 | You rolled a 4 and a 1. false |
| 8 | 12 | You rolled a 6 and a 6. true |

Below is a summary of what the Dice class does,

- Declares a Scanner object
- Prompts the user for two integers
- Creates two random numbers based on the integers provided in the range of 1 (inclusive) up to the integer provided (inclusive)
- Prints the random numbers to the console, along with whether the values on the die are the same.

Write the Dice class below. You need not indicate the imports required of the Scanner object.

```
public class Dice{

     public static void main(Strings args[]){









     }
}
```

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2. The GuessNum class below evaluates whether guesses a digit in a 3 digit number correctly. Consider the following examples,

| **Number** | **Guess** | **Output** |
|---|---|---|
| 123 | 2 | True |
| 345 | 6 | False |
| 301 | 1 | True |
| 900 | 9 | True |

Below is a summary of what the GuessNum class does,

- Creates a random integer from 100 to 999 (inclusive) and stores it in number
- Declares a Scanner object
- Prompts the user for an integer guess
- Evaluates whether the guessed integer is in the number and prints the result

Write the GuessNum class below. You may not use if statements in your solution.

```
public class GuessNum{
     public static void main(String args[]){









   }
}
```

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Score _____/12

3. Consider the input for two numbers, *num1* and *num2*. If *num1* is greater than *num2*, you must swap the values you stored in the numbers. You must use the JAVA ternary operator to compare the numbers, no if statements are allowed. Below are example inputs and results.

| **num1** | **num2** | **result** | **Explanation** |
|---|---|---|---|
| 2 | 5 | num1 = 2<br>num2 = 5 | The values of num1 and num2 are unchanged |
| 5 | 2 | num1 = 2<br>num2 = 5 | The values stored in num1 and num2 are swapped |

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Score _____/12