Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NumberGuess3.java Questions

1. In one or two sentences, describe what the program does.

The program creates a random number and prompts the user to input numbers until they get it right, then outputs how long it took the user to find the number.

1. What statement is needed to replace lines 10 and 11 in order to use Math.random() instead of the Random class?

int number = (int) (Math.random()\*100);

1. Which variable tracks the number of guesses? numGuesses
2. Which statement or statements determine(s) the number of matches for the current guess?

public static int matches(int number, int guess) {  
 int numMatches = 0;  
   
 if (guess / 10 == number / 10 ||   
 guess / 10 == number % 10) {  
 numMatches++;  
 }  
   
 if (guess / 10 != guess % 10 &&   
 (guess % 10 == number / 10 ||   
 guess % 10 == number % 10)) {  
 numMatches++;  
 }  
   
 return numMatches;  
 }

1. Which part of the above statement(s) find(s) the one’s place of guess? Which finds the ten’s place of guess?

Ones: guess%10

Tens: guess/10

1. If variable, number, is 55, what will be the value of variable, guess, right before the program executes line 26, System.out.println(“You got it right in “ + numGuess + “tries.”);?

55

1. What is the purpose of the statement while (guess < 0 || quess >= 100) on line 61?

To make sure the user inputs a number in between 0 and 100

1. What is the purpose of calling console.hasNextInt() on line 72?

To make sure the user inputs an integer value