

Component C. Personalized Project Reference.

Procedure:

i.

```
public static int multiplicationTables(int numberOfProblems)
{
    int[] deck = {1,2,3,4,5,6,7,8,9,10,11,12};
    Scanner scan = new Scanner(System.in);
    Random random = new Random();
    int numberCorrect = 0;
    for (int i = 0; i < numberOfProblems; i++)
    {
        int number1 = deck[random.nextInt(deck.length)];
        int number2 = deck[random.nextInt(deck.length)];

        int product = number1 * number2;

        System.out.println("What is " + number1 + " x " + number2 + " ?");
        int userAnswer = scan.nextInt();

        if (product == userAnswer)
        {
            numberCorrect++;
            System.out.println("Great Job! " + product + " is correct!");
        }
        else if (userAnswer <= product + 5 && userAnswer >= product - 5)
            System.out.println("Close! The right answer was " + product + ".");
        else
            System.out.println("Incorrect! The right answer was " + product + ".");

        System.out.print("\n");
    }
    return numberCorrect;
}
```

ii.

```
int numberCorrect = multiplicationTables(numberOfProblems);
```

List:

i.

```
int[] deck = {1,2,3,4,5,6,7,8,9,10,11,12};
```

ii.

```
int number1 = deck[random.nextInt(deck.length)];  
int number2 = deck[random.nextInt(deck.length)];
```