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| 1. Consider the code below. Predict the result of each of the following numeric operations   double d1 = 37.9;  double d2 = 1004.128;  int i1 = 12;  int i2 = 18; | |
| (a) 57.2 \* (i1 / i2) + 1  **1.0** | |
| (b) 57.2 \* ((double)i1 / i2) + 1  **39.13333333333333** | |
| (c) 15 – i1 \* (d1 \* 3) + 4  **-1345.3999999999999** | |
| (d) 15 – i1 \* ((int)d1 \* 3) + 4  **-1313** | |
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| |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | A RandomNumber class below accepts a positive integer from the user and assigns this value to a variable called max. It then creates a random number within a range that spans the negative value of the max (inclusive) and the positive value (not inclusive) and prints the result to the console. Consider the following examples,   |  |  | | --- | --- | | **Run** | **Output** | | Java RandomNumber 10 | 8 | | Java RandomNumber 5 | -3 | | Java RandomNumber 8 | 0 | | Java RandomNumber 11 | 11 | |  |  |   Complete the RandomNumber class below. | | | public class RandomNumber{  public static void main(String args[]){  int max = args[0];          int min = max\*-1;          int rand = (int)((Math.random()\*(max - min))-max);          System.out.println(rand);  } | | |  | /4 | |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | A BinaryToDecimal class below accepts a 3-digit positive binary integer from the user and assigns this value to a variable called bin. It then converts the number to its decimal equivalent and stores the result in a variable called dec. Consider the following examples,   |  |  | | --- | --- | | **Run** | **value of dec** | | Java BinaryToDecimal 011 | 3 | | Java BinaryToDecimal 101 | 5 | | Java BinaryToDecimal 111 | 7 | | Java BinaryToDecimal 010 | 2 | |  |  |   Complete the BinaryToDecimal class below. | | | public class BinaryToDecimal{  public static void main(String args[]){  int bin = args[0];          int val1 = bin%10\*(int)Math.pow(2,0);          bin /= 10;          int val2 = bin%10\*(int)Math.pow(2,1);          bin /= 10;          int val3 = bin%10\*(int)Math.pow(2,2);          int dec = val1 + val2 + val3;  } | | |  | /4 | | |