Part 1 Employee Class

- Write a class called Employee

  Instance variables:
  - String name
  - int empNum

- Write 3 constructors
  - Default constructor Employee()
  - Two parameters constructor Employee(String n, int en)
  - Copy constructor Employee (Employee other)

- Write setters (mutates) and getters (accessors) for all instance variables

- Write equals and toString

- Now write a tester (driver) that tests all of the above.

Part 2 Dice Game (Turn in Dice, DiceTester and DiceGame)

First create a Dice class.

It has one instance variable
- Int diceValue

It has 3 constructors
A. No Argument - initialize diceValue to 0
B. Fully Qualified (one parameter constructor)
C. Copy Constructor

It has 1 setter and 1 getter, toString. No need for equals method.

It also has a method called Roll. This method returns the diceValue. The diceValue is determined to be a random number between 1 and 6.

Remember to import the java.util.Random
Random randGen = new Random()

Write a tester program(driver) for your Dice class. Completely test all the methods in the class.

Then make a DiceGame class that does the following:

1. Declare and set the variable purse = 20. This is the amount of money you start out with.

2. Creates 2 objects dice1 and dice2

   Dice dice1 = new Dice();
   Dice dice2 = new Dice();

3. Use a while loop ,
   while(purse>0) {

   Inside the while loop
     - ask the user to enter what amount of money they want to bet.
     - Test to make sure the bet is less than or equal to the purse. If not print out message saying the bet must be less than current purse, enter a new bet. (See example output below HINT - this will require another while loop)
     - Ask the user what number they want to bet will come up on the two dice
     - Get the value of the two dice
       int x = dice1.getValue();
       int y = dice2.getValue();

     - if (the number bet) = (the sum of x + y), purse = purse + bet
       Otherwise purse = purse - bet

4. End while loop
5. When there is no more money, write a message to go home

See the sample exchange below: User inputs in bold

Enter the amount to bet : 3

Enter the number you bet on : 10

The dice are 4 and 6. You won! You have 23 dollars
Enter the amount you want to bet: 10

Enter the number you bet on: 6

The dice are 3 and 2. You lost. You have 13 dollars

Enter the amount you want to bet: 14

Bet must be less than or equal to 13 dollars, enter new bet: 15

Bet must be less than or equal to 13 dollars, enter new bet: 13

Enter the number you bet on: 5

The dice are 1 and 3. You lost! You have 0 dollars

Go home