Lab 4

1-)

Write a WeightConverter class. An instance of this class is created by passing the gravity of an object relative to the Earth's gravity (see Exercise 16 on page 144). For example, the Moon's gravity is approximately 0.167 of the Earth's gravity, so we create a WeightConverter instance for the Moon as

```
WeightConverter  moonWeight;
moonWeight = new WeightConverter( 0.167 );
```

To compute how much you weigh on the Moon, you pass your weight on Earth to the convert method as

```
yourMoonWeight = moonWeight.convert( 160 );
```

2-)

Write a program that accepts the unit weight of a bag of coffee in pounds and the number of bags sold and displays the total price of the sale, computed as follows:

```
totalPrice     = bagWeight * numberOfBags * pricePerLb;
totalPriceWithTax = totalPrice + totalPrice * taxrate;
```

Display the result in the following manner:

```
Number of bags sold: 32
     Weight per bag: 5 lb
    Price per pound: $5.99
          Sales tax: 7.25%

        Total price: $ 1027.88
```

Format to two decimal places.

Define and use a programmer-defined CoffeeBag class. Include class constants for the price per pound and tax rate with the values $5.99 per pound and 7.25 percent, respectively.