```java
/*****************************************************************************
*
*  File: CoffeeOrders.java
*
*  Author: Joshua Wiley
*
*  Description:  Finds all calculations for a coffee shop
*
*  Date: 4-24-15
*
*  Comments: It is cheaper to send 1 medium box then 2 small boxes i.e. 8 bags
*            ordered would be shipped in 1 medium box not 2 small boxes.
*
*****************************************************************************/

public class CoffeeOrders
{
    /*** Class Constants ***/

    private static final int LARGE_BOX  = 20;
    private static final int MEDIUM_BOX = 10;
    private static final int SMALL_BOX  = 5;

    public  static final double LARGE_BOX_PRICE  = 1.80;
    public  static final double MEDIUM_BOX_PRICE = 1.00;
    public  static final double SMALL_BOX_PRICE  = 0.60;
    private static final int   MAX_QUANTITY = 1500;

    private static final double PRICE_PER_BAG  = 5.50;

    /*** Class Methods ***/

    public static double calculatePurchasePrice( int bagsOrdered )
    {
        /*** local Variables ***/

        double purchasePrice = 0.0;

        /*** Calculates the purchase price before shipping ***/

        purchasePrice = PRICE_PER_BAG * bagsOrdered;

        return purchasePrice;
    }

    public static double totalPrice( int bagsOrdered, int large, int medium, int small )
    {
        /*** local Variables ***/

        double totalPrice = 0.0;

        /*** Calculates the total purchase price with shipping ***/

        totalPrice += calculatePurchasePrice( bagsOrdered );
        totalPrice += boxSizeCost( large, LARGE_BOX_PRICE );
        totalPrice += boxSizeCost( medium, MEDIUM_BOX_PRICE );
        totalPrice += boxSizeCost( small, SMALL_BOX_PRICE );

        return totalPrice;
    }

    public static int largeBoxesNeeded( int bagsToBox )
    {
        /*** local Variables ***/

        int boxes = 0;

        boxes = bagsToBox / LARGE_BOX;

        return boxes;
```

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71      }
72
73      public static int mediumBoxesNeeded( int bagsToBox )
74      {
75          /*** local Variables ***/
76
77          int boxes = 0;
78
79          boxes = ( bagsToBox % LARGE_BOX ) / MEDIUM_BOX;
80
81          if ( ( bagsToBox % LARGE_BOX ) % MEDIUM_BOX > SMALL_BOX )
82              boxes ++;  //It is cheaper to send 1 medium then 2 small
83
84          return boxes;
85      }
86
87      public static int smallBoxesNeeded( int bagsToBox )
88      {
89          /*** local Variables ***/
90
91          int boxes = 0;
92
93          boxes = ( ( ( bagsToBox % LARGE_BOX )  % MEDIUM_BOX ) );
94          if ( boxes > SMALL_BOX )
95              boxes = 0;  //It is cheaper to send 1 medium then 2 small
96          else if ( boxes > 0 )
97              boxes = 1;
98          else
99              boxes = 0;
100
101         return boxes;
102     }
103
104     public static double boxSizeCost( int numberOfBoxes, double boxPrice )
105     {
106         /*** local Variables ***/
107
108         double price = 0;
109
110         /*** Calculates shipping ***/
111
112         price = numberOfBoxes * boxPrice;
113
114         return price;
115     }
116
117     public static boolean validateString( String newString )
118     {
119         boolean status = false;
120                         //Makes sure the string is not empty
121         if ( newString.trim().length() > 1 )
122             status = true;
123
124         return status;
125     }
126
127     public static boolean validateState( String newString )
128     {
129         boolean status = false;
130         int i = 0;  //Initializes for loop
131
132         String states[] = { "AL","AK","AZ","AR","CA",
133                             "CO","CT","DE","FL","GA",
134                             "HI","ID","IL","IN","IA",
135                             "KS","KY","LA","MA","MI",
136                             "ME","MD","MN","MS","MO",
137                             "MT","NE","NV","NH","NJ",
138                             "NM","NY","NC","ND","OH",
139                             "OK","OR","PA","RI","SC",
140                             "SD","TN","TX","UT","VT",
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                            "VA","WA","WV","WI","WY" };

        for ( i = 0; i < states.length; i++ )
        {                   //Makes sure 2 letter abbr. is an actual state
            if ( newString.equals( states[ i ] ) )
                status = true;
        }

        return status;
    }

    public static boolean validateQuantity( int Quantity )
    {
        boolean status = false;

        if ( ( Quantity >= 1 )  && ( Quantity <= MAX_QUANTITY ) )
            status = true;

        return status;
    }

    public static boolean validateZipcode( int Zipcode )
    {
        boolean status = false;

        if ( ( Zipcode >= 01001 )  && ( Zipcode <= 99950 ) )
            status = true;

        return status;
    }
}
```