ArrayLists of Objects

Many of the challenging ArrayList questions on the AP exam will also test your understanding of object oriented programming concepts.

Consider the following classes:

```
/* A simple coin class */
public class Coin
{
    private double myValue;
    private String myName;

    //constructor
    public Coin(double value, String name)
    {
        myValue = value;
        myName = name;
    }

    //Return the value and name of this coin.

    public double getValue()
    { return myValue; }

    public String getName()
    { return myName; }

    //Define equals method for Coin objects.
    public boolean equals(Object obj)
    { /* implementation not shown */ }

    //Other methods not shown.
        ...
}
```

```
/* A purse holds a collection of coins */
public class Purse
{
    private ArrayList<Coin> coins;

    //constructor
    //Creates an empty purse.
    public Purse()
    { coins = new ArrayList<Coin>(); }

    //Adds aCoin to the purse.
    public void add(Coin aCoin)
    { coins.add(aCoin); }

    //Returns total value of coins in purse.
    public double getTotal()
    { /* implementation not shown */}

}
```

1. Complete the getTotal method of the Purse class:

```
public double getTotal() {




}
```

2. A Boolean method find is added to the Purse class, which returns true if the purse has a coin that matches aCoin, false otherwise. Write this method:

```
public Boolean find (Coin aCoin) {









}
```

3. Imagine we now have an ArrayList of purses. Write a loop to remove all empty purses from this list.

4. Imagine we still have an ArrayList of purses. Write a loop to calculate the sum all of the values of the coins in the purses in the list