

You are responsible for being familiar with the Coin and Purse classes illustrated in our textbook. You must be able to recite & explain the algorithms below.

Counting the number of matching Coin objects in an ArrayList<Coin> named coins:

```
public int count(Coin aCoin)
{
    int matches = 0;
    for (int i = 0; i < coins.size(); i++)
    {
        Coin c = coins.get(i);
        if (c.equals(aCoin))
        {
            matches++;
        }
    }
    return matches;
}
```

Sequential search to find if a Coin object is found in an ArrayList<Coin> named coins:

```
public boolean find(Coin aCoin)
{
    for (int i = 0; i < coins.size(); i++)
    {
        Coin c = coins.get(i);
        if (c.equals(aCoin))
        {
            return true;
        }
    }
    return false;
}
```

Sequential search to find the largest value in an ArrayList<Coin> named coins:

```
public Coin getMaximum()
{
    Coin max = coins.get(0);
    for (int i = 1; i < coins.size(); i++)
    {
        Coin c = (Coin)coins.get(i);
        if (c.getValue() > max.getValue())
        {
            max = c;
        }
    }
    return max;
}
```