

TP GLOG AV

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**Question 3** : il y a une erreur dans cette méthode de test. L'erreur réside dans l'utilisation de `assertTrue(expected.equals(result))`.

**Question 5** : tous les tests ont réussis

**Question 6** :

@Override

```
public boolean equals(Object objt) {
    if (this == objt) {
        return true;
    }
    if (objt == null || getClass() != objt.getClass()) {
        return false;
    }
    Money other = (Money) objt;
    return fAmount == other.fAmount && fCurrency.equals(other.fCurrency);
}
```

**Question 7** :

package fr.emse.test;

import static org.junit.Assert.\*;

import org.junit.Before;

import org.junit.Test;

```
public class MoneyTest {
    private Money m12CHF;
    private Money m14CHF;
```

@Before

```
public void setUp() {
    m12CHF = new Money(12, "CHF");
    m14CHF = new Money(14, "CHF");
}
```

@Test

```
public void testSimpleAdd() {
    Money expected = new Money(26, "CHF");
    Money result = m12CHF.add(m14CHF);
    assertEquals(expected, result);
}
```

@Test

```

    public void testEquals() {
        assertTrue(!m12CHF.equals(null));
        assertEquals(m12CHF, m12CHF);
        assertEquals(m12CHF, new Money(12, "CHF"));
        assertTrue(!m12CHF.equals(m14CHF));
    }
}

```

### **Question 8 :**

@Override

```

    public boolean equals(Object objt) {
        if (this == objt) {
            return true;
        }
        if (objt == null || getClass() != objt.getClass()) {
            return false;
        }
        MoneyBag other = (MoneyBag) objt;
        return fMonies.equals(other.fMonies);
    }

```

### **Question 12 :**

```
import static org.junit.Assert.assertEquals;
```

```
import org.junit.Before;
```

```
import org.junit.Test;
```

```

public class MoneyBagTest {
    private Money f12CHF;
    private Money f7USD;
    private MoneyBag fMB1;
    private MoneyBag fMB2;

    @Before
    public void setUp() {
        f12CHF = new Money(12, "CHF");
        f7USD = new Money(7, "USD");
        fMB1 = new MoneyBag(f12CHF);
        fMB2 = new MoneyBag(f7USD);
    }

```

@Test

```

    public void testMixedSimpleAdd() {
        Money bag[] = { f12CHF, f7USD };
        MoneyBag expected = new MoneyBag(bag);
        assertEquals(expected, f12CHF.add(f7USD));
    }

```

```

@Test
public void testBagSimpleAdd() {
    MoneyBag expected = new MoneyBag(f12CHF, f7USD);
    assertEquals(expected, fMB1.add(f7USD));
}

@Test
public void testSimpleBagAdd() {
    MoneyBag expected = new MoneyBag(f12CHF, f7USD);
    assertEquals(expected, f12CHF.add(fMB2));
}

@Test
public void testBagBagAdd() {
    MoneyBag expected = new MoneyBag(f12CHF, f7USD);
    assertEquals(expected, fMB1.add(fMB2));
}
}

```

**Question 13 :**

```

interface IMoney :
package fr.emse.test;

interface IMoney {
    IMoney addMoney(Money money);
    IMoney addMoneyBag(MoneyBag moneybag);
}

```

Dans Class Money :

```

class Money implements IMoney {
    private int fAmount;
    private String fCurrency;

    public Money(int amount, String currency) {
        fAmount = amount;
        fCurrency = currency;
    }

    public int amount() {
        return fAmount;
    }

    public String currency() {
        return fCurrency;
    }
}

```

```

    public IMoney add(IMoney money) {
        return m.addMoney(this);
    }

    public IMoney addMoney(Money money) {
        if (currency().equals(m.currency())) {
            return new Money(amount() + m.amount(), currency());
        } else {
            // Handle different currencies
            return null; // For simplicity, returning null
        }
    }

    public IMoney addMoneyBag(MoneyBag moneybag) {
        return mb.addMoney(this);
    }
}

```

Dans class MoneyBag :

```

class Money implements IMoney {
    private int fAmount;
    private String fCurrency;

    public Money(int amount, String currency) {
        fAmount = amount;
        fCurrency = currency;
    }

    public int amount() {
        return fAmount;
    }

    public String currency() {
        return fCurrency;
    }

    public IMoney add(IMoney m) {
        return m.addMoney(this);
    }

    public IMoney addMoney(Money m) {
        if (currency().equals(m.currency())) {
            return new Money(amount() + m.amount(), currency());
        } else {
            // Handle different currencies
            return null; // For simplicity, returning null
        }
    }
}

```

```

    }

    public IMoney addMoneyBag(MoneyBag mb) {
        return mb.addMoney(this);
    }
}

```

Et les methodes add/addMoney/ addMoneyBag :

```

public IMoney add(IMoney m) {
    return m.addMoneyBag(this);
}

public IMoney addMoney(Money m) {
    fMonies.add(m);
    return this;
}

public IMoney addMoneyBag(MoneyBag mb) {
    for (Money m : mb.fMonies) {
        appendMoney(m);
    }
    return this;
}

```

**Question 14 :**

Il faut importer le lib : `import static org.junit.Assert.assertEquals;`