Warm-ups solutions

1. Functions defined by the same name but different parameters (NOTICE: not by different return type!).
2. No. the type of function `foo(int, int)` has been defined already.

```
int len = theString.length()
```

```
String newString = foo + "?" + bar;
```

5. the object is uninitialized.

```
if (object == null) {
  // do something
}
```

7. It will give you an error on lossy conversion from double to int.
8. examples:
   - mutable: int, double, ...
   - immutable: String, all Wrapper classes (not necessary for the quiz)...

```
String a = "I have\nan\napple";
String[] out = a.split("\n");
```

10. You want to make sure uninitialized variables are not checked accidentally (bad bad!).

Example codes for the practice

1. Parsing the data

```
String[] parsedSales = sales.split("\n");
```

2. Check for errors

```
// 1. lazy way for this question
boolean checkErrors(String[] a, String[] b) {
  // if both arrays are null, no errors
  if (a == null && b == null) {
    return true;
  }
  // if either array is null, then return false
  if (a == null || b == null) {
    return false;
  }

  int totalNumGame = a.length;
  for (int i = 0; i < totalNumGame; i++) {
    if (!a[i].equals(b[i])) {
      return false;
    }
  }
  return true;
}
```

```
/*
...
*/

// 2. split String again and compare sale/percentage changes
//    by their corresponding values
boolean checkErrors(String[] a, String[] b) {
  // if both arrays are null, no errors
  if (a == null && b == null) {
    return true;
  }
  // if either array is null, then return false
  if (a == null || b == null) {
    return false;
  }

  int totalNumGame = a.length;
  for (int i = 0; i < totalNumGame; i++) {
    String[] itemA = a[i].split(",");
    String[] itemB = b[i].split(",");
    double saleA = Double.parseDouble(itemA[1]);
    double saleB = Double.parseDouble(itemA[2]);
    double percentA = Double.parseDouble(itemB[1]);
    double percentB = Double.parseDouble(itemB[2]);
    if (saleA != saleB || percentA != percentB) {
      return false;
    }
  }
  return true;
}
```

3. Report to GabeN

```
void report(String sale) {
  String[] parsedSale = sale.split(",");
  String filler1 = " total sale is $";
  String filler2 = " mil. Comparing to last week, it changes ";
  String filler3 = "%.";
  System.out.println(parsedSale[0] + filler1 + parsedSale[1]
  + filler2 + parsedSale[2] + filler3);
}
```