3. Debugging

Consider a static method called **dosageDays** that computes and returns the days' worth of medication dosages possible in a prescription given the total amount prescribed, the dosage amount, the patient's age, and dosage frequency:

- `double totalRx` - the amount of medication units prescribed to a patient (guaranteed to be at least 0.0)
- `double dosageAmt` - the measured amount of one single dosage of medication in units, assuming the patient is an adult. (guaranteed to be less than or equal to the `totalRx`)
- `boolean isAdult` - whether the patient is an adult or not. If the patient is not an adult, the actual dosage amount (i.e. defined by `dosageAmount`) should be further divided by two.
- `int dosageFreq` - the amount of times the prescribed medication dosage should be taken in one day. (guaranteed to be at least 1)

With this information, the method **dosageDays** will print and return the number of days' worth of medication the prescription gives a patient.

For example, suppose the following call was made:

```
double days = dosageDays(200, 20, true, 2);
```

This call to a correct implementation of the method might produce output like the following:

```
Prescription: 200.0 unit(s)
Adult Patient?: Yes
Adjusted Dosage Amount: 20.0 unit(s)
Dosage Frequency: 2 time(s) per day
===> Dosage Days: 5.0
```

Plus, `days` will have the value of `5.0`.

Another similar correct call might be the following:

```
double days = dosageDays(100, 10, false, 2);
```

This call to a correct implementation of the method might produce output like the following:

```
Prescription: 100.0 unit(s)
Adult Patient?: No
Adjusted Dosage Amount: 5.0 unit(s)
Dosage Frequency: 2 time(s) per day
===> Dosage Days: 10.0
```

Plus, `days` will have the value of `10.0`.

Consider the following proposed buggy implementation of **dosageDays**:

```
1  public static double dosageDays(int totalRx, int dosageAmt,
2                                  boolean isAdult, int frequency) {
3      String adultString = "maybe";
4      if(isAdult.equals("true")) {
5         adultString = "Yes";
6      } else {
7         adultString = "No";
8      }
9      System.out.println("Prescription: " + totalRx + " unit(s)”);
10     System.out.println("Adult Patient?: " + adultString);
11     System.out.println("Adjusted Dosage Amount: " + dosageAmt + " unit(s)");
12     System.out.println("Dosage Frequency: " + frequency + "time(s) per day");
13     System.out.print("===> ");
14     System.out.println("Dosage Days: " + totalRx / dosageAmt / frequency);
15 }
```

This implementation contains three bugs that are causing it to not work as intended!

Your task: Annotate (write on) the code below to indicate how you would fix the three bugs. You may **add** (using arrows to indicate where to insert), **remove** (by crossing out), or **modify** (with a combination) any code you choose. However, the fix should not require a lot of work.

You must correctly identify three of the lines with issues, or correctly identify and fix **two** of the bugs for an S grade.

You must correctly identify all three lines with the bugs **and** correctly fix all three of the bugs for an E grade.

```
1  public static double dosageDays(double totalRx, double dosageAmt,
2                                  boolean isAdult, int frequency) {
3          String adultString = "maybe";
4          if(isAdult.equals("true")) {
5              adultString = "Yes";
6          } else {
7              adultString = "No";
8          }
9          System.out.println("Prescription: " + totalRx + " unit(s)");
10         System.out.println("Adult Patient?: " + adultString);
11         System.out.println("Adjusted Dosage Amount: " + dosageAmt + " unit(s)");
12         System.out.println("Dosage Frequency: " + frequency + " time(s) per day");
13         System.out.print("===> ");
14         System.out.println("Dosage Days: " + totalRx / dosageAmt / frequency);
15     }
```