

CS 62 Quiz

Preconditions and Assertions

Mawhorter Spring 2017

Name: _____

1. What's one difference (technical and/or design-wise) between an “**assert**” statement and an “**if**” that throws an exception?

2. What is wrong with the following constructor (assuming that the “gcd” function exists and correctly computes the greatest common denominator of two numbers)? Explain in a sentence or three.

```
public Fraction(int numerator, int denominator) {  
    assert denominator != 0 : "Denominator can't be zero!";  
    int div = gcd(numerator, denominator);  
    this.top = numerator/div;  
    this.bottom = denominator/div;  
    if (this.top/this.bottom != numerator/denominator) {  
        throw new RuntimeException("Simplification failed!");  
    }  
}
```