## 1. Reducing Fractions

## 1.1 Arithmetic Expressions

**Definition 1.1.1 – Reduced Fraction**. A fraction of the form  $\frac{m}{n}$ , where  $n \neq 0$ , is said to be in it's reduced form if the gcd(m, n) = 1

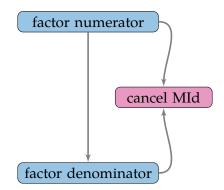


Figure 1.1: Reducing Fractions Workflow

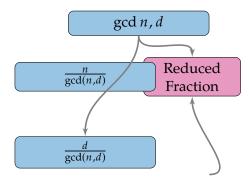


Figure 1.2: Using the gcd(n, d) to reduce the fraction  $\frac{n}{d}$  Workflow