**Homework 1 Chapter 1: Proof Questions**

**207 Chapter 1 “Speaking Mathematically“ Proof Questions**

**#1.**

Define functions *F* and *G* from **R** to **R** by the following formulas:

*F*(*x*) = (*x* + 1)(*x −* 3) and *G*(*x*) = (*x −* 2)2 *−* 7*.*

Prove that *F* ≠ *G*.



**#2.**



Define a relation *R* from **R** to **R** as follows: For all (*x, y*) *∈* **R***×***R**, (*x, y*) ∈ Rif, and only if, *x* = *y*2 + 1*.* Prove that (17, -4) ∈ R

