

MA1125

Assignment 1

Due Monday 10th Oct. 11.

Q1. Investigate f, g 1-1 or onto
what can you say about $f+g, f \cdot g, f \circ g$?

Q2. We proved $f \circ g$ is 1-1 $\Rightarrow g$ is 1-1.
Does g is 1-1 $\Rightarrow f \circ g$ is 1-1?
Does $f \circ g$ is 1-1 $\Rightarrow f$ is 1-1.

Q3. We proved $f \circ g$ is onto $\Rightarrow f$ is onto.
Answer the questions corresponding to Q2

Q4. Investigate f, g even or odd
what can you say about $f+g, f \cdot g, f \circ g$?

Q5. Let $y = f(x) = \frac{2x+1}{x-1} \quad x \neq 1$

Find $x = f^{-1}(y)$.