Nov 24, 2010

## METU, Fall 2010, Math 111, Section 1. $\mathbf{Quiz} \ \mathbf{2}$

- 1. If  $A = \{1, 2, 3\}$ , then give an example of a relation R from A to A with 4 elements.
  - Find  $R^{-1}$ .
  - Find  $R \circ R^{-1}$ .
- 2. Define  $F = \{(x, y) \in \mathbf{R} \times \mathbf{R} : |x| = |y|\}.$ 
  - $\forall x \in \mathbf{R}(\exists y \in \mathbf{R}(xFy))$ . True or false? Explain.
  - Is F a function? Justify your answer.