

Quiz 7

MGF 3301 Intro. to Adv. Math

Student's Name: _____

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This is a 30 minute quiz. Discuss the problems in your group, and then write down your own answer.

1. Give an every day example of a relation R on the set of students in the room, so that R has at least one of the properties and doesn't have at least one of the properties of reflexive, symmetric, anti-symmetric and transitive.
2. Consider the set of integers \mathbb{Z} and the relation $a \sim b$ if 5 divides $b - a$.
 - (a) Verify that this is an equivalence relation.
 - (b) Describe the equivalence classes. How many equivalence classes are there?
3. Give an example of a well-ordered subset of the partial order on $\mathcal{P}(\mathbb{R})$ defined by set inclusion.