# MATH 114 <br> Homework due Monday, November 29 

7.5: $2,4,10,12,20(\mathrm{c}), 26$

Let $|A|=n$. How many
(a) symmetric
(b) both symmetric and antisymmetric
(c) reflexive, symmetric, and antisymmetric
relations are there on $A$ ?
8.1: $4,8,14$

The following problems are optional:
7.5: 54

Let $|A|=n$.

1. How many antisymmetric relations are there on $A$ ?
2. (I think this problem is very hard) How many transitive relations are there on A?
