

Fall 2023, Math 320: Preliminary Problem Set 5
Due: Thursday, September 28th, 2023
Properties of Rings

Preliminary problems. These problems should be completed before discussion on Thursday.

(P1) List the elements of \mathbb{Z}_8 . Decide whether each is (i) a zero-divisor, (ii) a unit, or (iii) neither.

(P2) Suppose R is a (not necessarily commutative) ring. Expand $(a + b)^2$ using distributivity.