

Fall 2019, Math 620: Preliminary Problem Set 6
Due: Thursday, October 3rd, 2019
Quotient Rings

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

(P1) List all 9 elements of $\mathbb{Z}_3[x]/\langle x^2 - 1 \rangle$, with no repetition.

(P2) Determine which element above equals $[x^4 + x + 1][x^5 + 2x^4 + 2]$ in $\mathbb{Z}_3[x]/\langle x^2 - 1 \rangle$.