

Math 506 Model Theory I
Problem Set III

Due: Friday October 3

1) Do a) or b) (or both)

a) Let $\mathcal{M} = (M, <) \models \text{DLO}$ and let $A \subseteq \mathcal{M}$. Describe the elements of $S_2^{\mathcal{M}}(A)$.

b) Let $K \models \text{ACF}$ and let k be a subfield of K . Prove that $p \in S_n^K(k)$ is isolated if and only if I_p is a maximal ideal. Give an example where p is isolated but not realized in k .

Do Problems 4.5.2, 4.5.4, 4.5.11