MATH 287 HOMEWORK 2

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Exercise 1. Proposition 2.7(iv). Let $m, n, p, q \in \mathbf{Z}$. If $m < n$ and $p < 0$ then $np < mp$.

Proof. -enter your proof here- □

Exercise 2. Proposition 2.12(iii). For all $m, n, p \in \mathbf{Z}$, if $p < 0$ and $mp < np$ then $n < m$.

Proof. -enter your proof here- □

Exercise 3. Proposition 2.26. In this problem, the textbook gives a proof. Your homework is to rewrite the proof in more detail.

Imagine a student in the class is confused by the proof. Rewrite the proof in a way that would make sense and be clear for a confused student.

Exercise 4. Project 2.28. Determine for which natural numbers $k^2 - 3k \geq 4$ and prove your answer.

Answer.

Claim 4.1. $k^2 - 3k \geq 4$ for (enter which values of k work)

Proof. (enter your proof here) □

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