

Math 431 Homework 7

Due 11/6

- 1.** Prove the Crossbar theorem: If ray \overrightarrow{AD} is between rays \overrightarrow{AB} and \overrightarrow{AC} then \overrightarrow{AD} intersects segment BC .
- 2.** Prove the best theorem you can come up with that roughly corresponds to Pasch's theorem where line that intersects one of the sides is replaced by a ray. Make sure to define all the terms you are using.
- 3.** Prove Proposition 3.11: If $A*B*C$, $D*E*F$, $AB \cong DE$, and $AC \cong DF$, then $BC \cong EF$.