

Homework five, due Wednesday, October 29.

1. On page five of the notes on **Betweenness and the Continuity Axiom** there are three places where it says “Simple exercise for the reader”. Do these exercises.

2. Suppose L is a line and τ is a motion. Show that

$$\rho_{\tau[L]} = \tau \circ \rho_L \circ \tau.$$

3. Suppose o is a point and τ is a motion. Show that

$$\alpha_{\tau(o)} = \tau \circ \alpha_o \circ \tau.$$

4. Suppose S and T are rays with a common origin. Define the rotation that carries S to T .