Typically reading assignments expect only a superficial understanding of the material. They are intended to give you a first look at material we'll explore in more depth in class. Occasionally, however, you will be asked to thoroughly understand something from the reading which we will not go through in class.

Most of the readings are from Bonahon, some are from Schwartz and sometimes you are asked to read online materials. Answer the following questions and turn in on the due date. The questions are intended to help you focus on what you are expected to get out of the reading and to ensure you are prepared for class. Your answers need not be long, but they should be thoughtful.

(1) Bonahon Chapters 4 and 5.1.1 and 5.1.2 (different parts will be studied to different levels of depth.)

   (a) How does Bonahon's notion of a proper quotient space compare to Schwartz's notion of a good quotient?

   (b) Explain how to show that the quotient map π (Lemma 4.2) is continuous.

   (c) What is the significance of Theorem 4.3? Also explain how to prove it using Lemma 4.5.

   (d) What is the significance of Theorem 4.4?

   (e) Explain the statement of Lemma 4.7 and how the classification of isometries of $\mathbb{E}^2$ is relevant.

   (f) What's the point of Section 4.5?

   (g) Outline the proof of Lemma 5.1 which says that a certain gluing of a rectangle is homeomorphic to the 2-dimensional torus.