Monday is Martin Luther King day, so I’ve kept this exercise set short. Read section 14 on multiplication of paths, and page 124 of section 15 defining the fundamental group.

Do the following exercises:

• 13.op
• 14.6ac
• (graduate students only) 14.6e
• (graduate students only) Read 14.6h. Then do exercise 14.6i. Compare this to a discussion in class.
• 15.3 ac (this exercise should be fairly easy; don’t give a fancy answer)