The following word problems are not in the text (they’re taken from old exams I’ve given). Work on them in groups, and turn in full solutions (not just answers) with the homework assignment due Wednesday.

For each problem, state which description best fits (uniform motion, mixture, geometry, work), and then follow the procedure outlined in lecture (also on page 14 of the book).

1. You mix 5 pounds of monkey food that sells for $4 per pound with some gorilla food that sells for $12 per pound. The resulting mix (food for bonobos) should sell for $10 per pound. How many pounds of gorilla food did you use?

2. Homer can row his boat 10 miles in the same time it takes Marge to cover 35 miles in her motorboat. If Marge’s boat travels 15 mph faster than Homer’s, how fast is Homer rowing his boat?

3. Your trained monkey can trim the hedges around your yard in 15 hours using a manual trimmer. If your chimpanzee helps out with the electric trimmer, the job takes 5 hours. How much time would it take the chimp to do the job alone?

4. The length of a rectangular photo is 2 inches longer than the width. The perimeter is 20 inches. What are the dimensions of the photo?

5. A monkey can type Hamlet in 9 hours. With a bonobo’s help, it takes only 4 hours. How long would it take the bonobo by itself?

Also do the following problems:

1.2 : 3, 7, 13, 17, 23, 25, 31, 35, 39, 49, 55, 59, 61