

# Homework 5

## 1 Unit Conversion

For each of the following, carry out factor label conversion. To receive any credit, you must show the full method for each problem. No shortcuts allowed!

1. Convert 15,000 feet to miles.
2. Convert 4 weeks to minutes.
3. Convert 3.4 meters to millimeters.
4. Convert 452 meters to kilometers.
5. Convert 875 milliliters to liters.
6. Convert 2 butts to gills.
7. Convert 22 kilometers to miles.
8. Convert 46 centimeters to inches.
9. Convert 12 liters to kilderkins.
10. Convert 74 kilometers to furlongs.
11. You are driving at 65 miles per hour. The next rest stop is 40 miles away. how many minutes will it take to get to the rest stop?
12. Mount McKinley, the highest mountain in North America, has a height of 6194 meters. How tall is this in miles?
13. How many square feet are in one acre of land?

## 2 Inflation

1. The first apple computer went on sale in 1977 for \$666.66. Adjusting for inflation, how much would this computer cost in 2018?
2. In 1950, a movie ticket cost \$0.50. Today, the average movie ticket price is \$10.14. Has the price of movie tickets kept pace with, under-performed, or over-performed inflation?
3. In 1975, the average college textbook cost \$12.00. Today, the average college textbook costs \$100.00. Compare this increase to the increase expected by inflation.
4. So far, you have received graded items in homework, quizzes, and exams. You should also be able to estimate your attendance rates. Using the grades you have received, compute your current course average. Note that for a partial average, like this one, the formula to use is:

$$\frac{15 \times Attendance + 5 \times HomeworkAverage + 15 \times QuizAverage + 15 \times ExamAverage}{45}$$