Exercise 1.8

While driving in an exotic foreign land you see a speed limit sign that reads 180,000 furlongs per fortnight. How many miles per hour is this? (One furlong is $\frac{1}{8}$ mile, and a fortnight is 14 days. A furlong originally referred to the length of a plowed furrow.)

Solution

Let's find out.

$$\frac{180\,000 \ \text{furlongs}}{1 \ \text{fortnight}} \times \frac{\frac{1}{8} \ \text{miles}}{1 \ \text{furlong}} \times \frac{1 \ \text{fortnight}}{14 \ \text{days}} \times \frac{1 \ \text{day}}{24 \ \text{hours}} = \frac{(180\,000)\left(\frac{1}{8}\right)(1)(1) \ \text{miles}}{(1)(1)(14)(24) \ \text{hour}} \approx 67.0 \ \frac{\text{miles}}{\text{hour}}$$