16. (a) [2 pts] Perform the following division by hand: \(7 \div 1.4\).

\[
\begin{array}{c|cc}
\hline
1.4 & 7.0 \\
\hline
5 & \\
\hline
\end{array}
\]

(b) [4 pts] Use the Fundamental Law of Fractions to explain why you treated both decimal points as you did.

\[
\frac{7}{1.4} = \frac{7 \times 10}{1.4 \times 10}
\]

Because both numerator and denominator must be multiplied by the same amount—namely 10—both decimal points move the same direction, + # of positions.

17. (a) [3 pts] Convert \(\frac{1}{8}\) to a percent.

\[
12.5\%
\]

(b) [5 pts] Convert 0.122222222... to a fraction.

\[
x = \frac{11}{90}
\]

(c) [3 pts] Make up a decimal that cannot be written as a fraction, telling how you know. (various)

It neither terminates nor repeats.

18. [5 pts] I bought an airline ticket for a total of $300, which included a 25% surcharge. What was the price of the ticket alone, without the surcharge?

\[
1.25t = 300 \quad \text{\$240}
\]

\[
t = 240
\]