Additional:

$$\frac{9}{4} = 2\frac{1}{4} = \frac{2.25}{\frac{9}{10}} = \frac{x}{3\frac{3}{5}} = \frac{18}{5}$$

$$\left(\frac{10}{9}\right)\frac{9}{10} \; x = \frac{9}{4} \cdot \frac{18}{5} \cdot \frac{10}{9}$$

$$\boxed{x = 9}$$

$$5\overline{)3.0} \quad \frac{.6}{}$$

$$3\frac{3}{5} \quad \frac{6}{10}$$

$$3.6$$

5.5 Solving Application Proportions

Recall key words to indicate a ratio or rate:

__in__ __for__ __on__ __per__ __from__ __to__

Steps for Application Problems

1) Read   2) Plan   3) Estimate

4) Solve   5) State the answer   6) Check

Ex 1 Solve   MATCH THE UNITS

Mike's car can travel 163 miles on 6.4 gallons of gas.

How far can it travel on a full tank of 14 gallons of gas?

Round to the nearest whole mile.

$$\frac{miles}{gallons} \qquad \frac{163}{6.4} = \frac{x}{14}$$

$$163 \cdot 14 = 6.4x$$

$$\frac{2282}{6.4} = \frac{6.4x}{6.4}$$

$$x = 356.5$$

$$\begin{array}{r} 163 \\ \times\ 14 \\ \hline 652 \\ 1630 \\ \hline 2282 \end{array}$$

The car can travel 357 miles w/ a full tank.

$$6.4\overline{)2282.0.} \quad 356.5$$
$$-192$$
$$362$$
$$320$$
$$420$$
$$-384$$
$$360$$

Ex 2 Solve

A newspaper report says that 7 out of 10 people surveyed

watched the news on TV. At that rate, how many of the 3200

people in town would you expect to watch the news?

$\dfrac{ppl}{total\ ppl}$

$\dfrac{7}{10} = \dfrac{x}{3200}$

$10x = 7 \cdot 3200$

$\dfrac{10x}{10} = \dfrac{22400}{10}$

$x = 2{,}240$

$\begin{array}{r} \overset{1}{3}2 \\ \times 7 \\ \hline 224 \end{array}$

2,240 ppl are expected to watch the news in town

Feeding Hummingbirds-RDA

CW/HW

Exit Card:

An advertisement says that 9 out of 10 dentists recommend sugarless gum. If the ad is true, how many of the 60 dentists in our city would recommend sugarless gum?

Challenge

5. A dentist sees a patient every 20 minutes? He works an average 60 hours per week. How many patients does he see in a year? He takes 3 weeks of vacation. **Round your answer down.**