Name _____   Date _____

1. Fill in the chart. The first one is done for you.

Division Expression	Unit Forms	Improper Fractions	Mixed Numbers	Standard Algorithm (Write your answer in whole numbers and fractional units. Then check.)	
a. $4 \div 3$	12 thirds ÷ 3 = 4 thirds	$\frac{4}{3}$	$1\frac{1}{3}$	$\begin{array}{r} 1\frac{1}{3} \\ 3\overline{)4} \\ -3 \\ \hline 1 \end{array}$	Check $3 \times 1\frac{1}{3} = 1\frac{1}{3} + 1\frac{1}{3} + 1\frac{1}{3}$ $= 3 + \frac{3}{3}$ $= 3 + 1$ $= 4$
b. $7 \div 5$	$\underline{35}$ fifths ÷ 5 = 7 fifths	$\frac{7}{5}$	$1\frac{2}{5}$	$\begin{array}{r} 1\frac{2}{5} \\ 5\overline{)7} \\ -5 \\ \hline 2 \end{array}$	$5 \times 1\frac{2}{5} = 5 + \frac{10}{5}$ $= 5 + 2$ $= 7$
c. $7 \div 2$	$\underline{14}$ halves ÷ 2 = 7 halves	$\frac{7}{2}$	$3\frac{1}{2}$	$\begin{array}{r} 3\frac{1}{2} \\ 2\overline{)7} \\ -6 \\ \hline 1 \end{array}$	$2 \times 3\frac{1}{2} = 6 + \frac{2}{2}$ $= 6 + 1$ $= 7$
d. $7 \div 4$	28 fourths ÷ 4 = 7 fourths	$\frac{7}{4}$	$1\frac{3}{4}$	$\begin{array}{r} 1\frac{3}{4} \\ 4\overline{)7} \\ -4 \\ \hline 3 \end{array}$	$4 \times 1\frac{3}{4} = 4 + \frac{12}{4}$ $= 4 + 3$ $= 7$

2. A coffee shop uses 4 liters of milk every day.

   a. If there are 15 liters of milk in the refrigerator, after how many days will more milk need to be
       purchased? Explain how you know.

$15 \div 4 = \frac{15}{4} = 3\frac{3}{4}$ More milk will be needed after 3 days.
You can't wait $\frac{3}{4}$ day before buying more.

   b. If only half as much milk is used each day, after how many days will more milk need to be purchased?

half as much = 2 liters each day
$15 \div 2 = \frac{15}{2} = 7\frac{1}{2}$ More milk will be needed after 7 days.
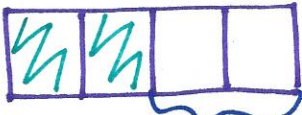Again, you can't wait $\frac{1}{2}$ day before buying more.

3. Polly buys 14 cupcakes for a party. The bakery puts them into boxes that hold 4 cupcakes each.

   a. How many boxes will be needed for Polly to bring all the cupcakes to the party? Explain how you
       know.

$14 \div 4 = \frac{14}{4} = 3\frac{2}{4} = 3\frac{1}{2}$ 4 boxes are needed. 3 are completely full, & the last box is $\frac{1}{2}$ full.

1 box   1 box   1 box $\frac{3}{4}$ box
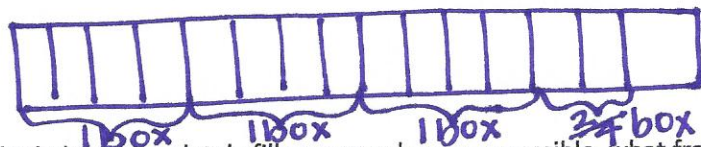
   b. If the bakery completely fills as many boxes as possible, what fraction of the last box is empty? How
       many more cupcakes are needed to fill this box?

Last Box: $\frac{2}{4}$ or $\frac{1}{2}$ the box is empty.
empty   2 more cupcakes are needed.