Name _____ Date _____

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

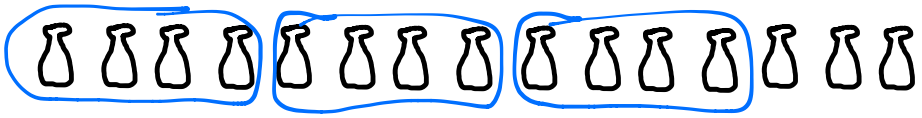
Division Expression	Unit Forms	Improper Fractions	Mixed Numbers	Standard Algorithm (Write your answer in whole numbers and fractional units, then check.)
a. $4 \div 3$	12 thirds ÷ 3 = 4 thirds	$\frac{4}{3}$	$1\frac{1}{3}$	$3\overline{)4}$ → $1\frac{1}{3}$, -3, 1 Check $3 \times 1\frac{1}{3} = 1\frac{1}{3}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

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

   a. If they have 15 liters of milk in the refrigerator, after how many days will they need to purchase more? Explain how you know.

$$4\overline{)15} \quad 3\tfrac{3}{4}$$
$$-12$$
$$3$$

After 3 days they will need to purchase more milk because at that point they will only have 3 liters left.



   b. If they only use half as much milk each day, after how many days will they need to purchase more?

$$2\overline{)15} \quad 7\tfrac{1}{2}$$
$$-14$$
$$1$$

they will need to purchase more milk after 7 days.

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.

$$4\overline{)14} \quad 3\tfrac{2}{4}$$
$$-12$$
$$2$$

Polly will need 4 boxes. Three boxes will be completely full. The last box will only have 2 cupcakes in it.

   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?

$\frac{2}{4}$ (or $\frac{1}{2}$) of the last box will be empty. 2 more cupcakes are needed to fill the box.