1. Jill is collecting honey from 9 different beehives, and recorded the amount collected, in gallons, from each hive in the line plot shown:

Gallons

She wants to write the value of each point marked on the number line above (Points a–d) in terms of the largest possible whole number of gallons, quarts, and pints. Use the line plot above to fill in the blanks with the correct conversions. (The first one is done for you.)

a. __0__ gal __3__ qt __0__ pt
b. __1__ gal __2__ qt __0__ pt
c. __2__ gal __0__ qt __1__ pt
d. __2__ gal __2__ qt __1__ pt

2. Shiloh wants to make 5 pitchers of tea. Each recipe calls for $\frac{1}{4}$ cup of sugar. If she makes 5 pitchers of tea will she have more or less than 1 whole cup of sugar? Explain your reasoning.

$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{5}{4} = 1\frac{1}{4}$ cups

more than 1 whole cup of sugar

or $5 \times \frac{1}{4} = \frac{5}{4}$ This is more than $\frac{4}{4}$
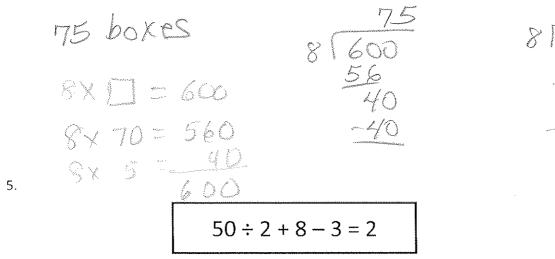
3. There are five bakeries. Each bakery bakes 728 trays of cookies in a day. How many trays of cookies can all the bakeries bake in 43 days? Explain your reasoning.

$(728 \times 5) \times 43$

$3640 \times 43 = 156,520$ cookies

or

$728 \times (5 \times 43)$
728×215
$156,520$ cookies

$3640 \times 10 = 36,400$
$36,400 \times 4 = 156,520$

4. Mrs. Allen needs 600 square tiles to cover the family room floor. The tiles come in boxes of 8. How many boxes does Mrs. Allen need? Explain your reasoning.

75 boxes

8 X □ = 600
8 X 70 = 560
8 X 5 = 40
        600

$$\begin{array}{r} 75 \\ 8\overline{)600} \\ 56 \\ \hline 40 \\ -40 \end{array}$$

$$\begin{array}{r|r} 8\overline{)600} & \\ 400 & 50 \\ \hline 200 & \\ 160 & 20 \\ \hline 40 & \\ 40 & 5 \\ \hline & \boxed{75} \end{array}$$

5.

$$50 \div 2 + 8 - 3 = 2$$

Rewrite, using what you know about order of operations, to show how the problem was solved.

$$50 \div (2 + 8) - 3 = 2$$
$$50 \div 10 - 3 = 2$$
$$5 - 3 = 2$$

6.

a. Alex and Chet both collect cards. Write an algebraic equation to show that Alex has twice as many cards as Chet. Let c represent the number of cards Chet has.

$$A = 2 \times C$$

b. If Chet has 8 cards, how many cards do they have altogether?

$$A = 2 \times C$$
$$A = 2 \times 8$$
$$16 = 2 \times 8$$
$$16 + 8 = 24 \qquad 24 \ cards$$