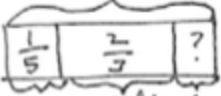


Problem 1

George weeded $\frac{1}{5}$ of the garden, and Summer weeded some, too. When they were finished, $\frac{2}{3}$ of the garden still needed to be weeded. What fraction of the garden did Summer weed?

the garden



George left Summer

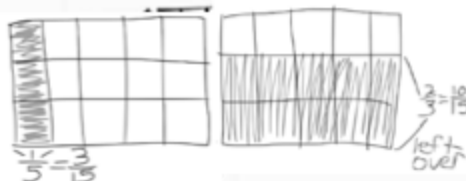
$$1 - \frac{1}{5} - \frac{2}{3} =$$

$$= \frac{4}{5} - \frac{2}{3}$$

$$= \frac{12}{15} - \frac{10}{15}$$

$$= \frac{2}{15}$$

Summer weeded $\frac{2}{15}$ of the garden.



$$\frac{1}{5} + \frac{2}{3} =$$

$$= \frac{3}{15} + \frac{10}{15}$$

$$= \frac{13}{15}$$

$$1 - \frac{13}{15} = \frac{2}{15}$$

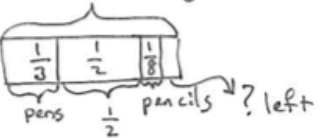
Summer weeded $\frac{2}{15}$ of the garden.

Problem 2

Jing spent $\frac{1}{3}$ of her money on a pack of pens, $\frac{1}{2}$ of her money on a pack of markers, and $\frac{1}{8}$ of her money on a pack of pencils.

What fraction of her money is left?

All her money



pens $\frac{1}{2}$ pencils ? left

$$1 - \frac{1}{3} - \frac{1}{2} - \frac{1}{8} =$$

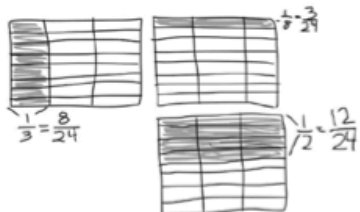
$$= \frac{2}{3} - \frac{1}{2} - \frac{1}{8}$$

$$= \frac{2}{3} - \frac{5}{8}$$

$$= \frac{16}{24} - \frac{15}{24}$$

$$= \frac{1}{24}$$

Jing had $\frac{1}{24}$ of her money left.



$\frac{1}{3} = \frac{8}{24}$ $\frac{1}{2} = \frac{12}{24}$ $\frac{1}{8} = \frac{3}{24}$

$$\frac{1}{3} + \frac{1}{2} + \frac{1}{8} =$$

$$= \frac{8}{24} + \frac{12}{24} + \frac{3}{24}$$

$$= \frac{23}{24}$$

$$\frac{24}{24} - \frac{23}{24} = \frac{1}{24}$$

Jing had $\frac{1}{24}$ of her money left.



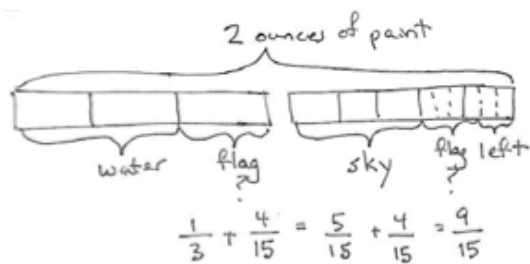
NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

If students finish quickly, have them re-work problems using a different strategy. Then during the problem debrief, take a moment to have them share which strategy they prefer and why.

Some students may realize they can find the number of like units on one rectangles as the student has done to the left. This is more efficient and many students might benefit from this short cut. In the debrief of the problem compare the methods and support the validity of this strategy.

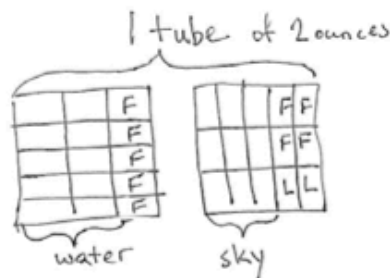
Problem 3

Shelby bought a 2 ounce tube of blue paint. She used $\frac{2}{3}$ ounce to paint the water, $\frac{3}{5}$ ounce to paint the sky, and some to paint a flag. After that she has $\frac{2}{15}$ ounce left. How much paint did Shelby use to paint her flag?



$$\frac{1}{3} + \frac{4}{15} = \frac{5}{15} + \frac{4}{15} = \frac{9}{15}$$

Shelby used $\frac{9}{15}$ ounce to paint the flag.



$$\frac{10}{15} + \frac{4}{15} + \frac{2}{15}$$

$$= \frac{21}{15} = 1 \frac{6}{15}$$

$$2 - 1 \frac{6}{15} = \frac{9}{15}$$

Shelby used $\frac{9}{15}$ ounce to paint the flag.

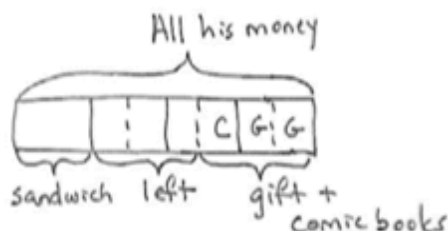
She used $\frac{9}{30}$ tube or $\frac{3}{10}$ tube to paint the flag.

Problem 4

Jim sold $\frac{3}{4}$ gallon of lemonade. Dwight sold some lemonade too. Together, they sold $1 \frac{5}{12}$ gallons. Who sold more lemonade, Jim or Dwight? How much more? (See the lesson debrief for student work samples.)

Problem 5

Leonard spent $\frac{1}{4}$ of his money on a sandwich. He spent 2 times as much on a gift for his brother as on some comic books. He had $\frac{3}{8}$ of his money left. What fraction of his money did he spend on the comic books?



$$\text{gift} + \left[\frac{1}{8} \right] \quad 1 - \frac{7}{8} = \frac{1}{8}$$

$$\text{comics} \left[\frac{1}{8} \right]$$

Leonard spent $\frac{1}{8}$ of his money on comics.