

### M3.L14. Solving Multi-Term Problems

AP

Mr. Magoo needs to make  $\frac{23}{24}$  Kg more of fudge

$\frac{1}{2}$ Kg		
$\frac{3}{8}$	$\frac{1}{6}$	?
B	S	needs

$$\frac{1}{2} - \left( \frac{3}{8} + \frac{1}{6} \right)$$

$$\left( \frac{3 \times 3}{8 \times 3} \right) + \left( \frac{1 \times 4}{6 \times 4} \right)$$

$$\left( \frac{9}{24} + \frac{4}{24} \right)$$

$$\frac{1}{2} - \frac{13}{24}$$

~~$$\left( \frac{1 \times 12}{2 \times 12} \right) - \left( \frac{13 \times 1}{24 \times 1} \right)$$~~

$$\left( \frac{24}{24} - \frac{13}{24} \right) = \frac{11}{24}$$

$$\frac{36}{24} - \frac{13}{24} = \frac{23}{24}$$

The students drank  $4\frac{7}{24}$  cups of milk

— ? —		
$2\frac{3}{4}$	$\frac{3}{8}$	$1\frac{1}{6}$
Ch	A.	Ca

$$2\frac{3}{4} + \frac{3}{8} + 1\frac{1}{6}$$

$$3 + \left( \frac{3 \times 6}{4 \times 6} \right) + \left( \frac{3 \times 3}{8 \times 3} \right) + \left( \frac{1 \times 4}{6 \times 4} \right)$$

$$3 + \frac{18}{24} + \frac{9}{24} + \frac{4}{24}$$

$$3 + \frac{31}{24} \rightarrow 3 + \frac{24}{24} + \frac{7}{24}$$

$$= 4\frac{7}{24}$$

### M3·L14· Solving Multi-Term Problems

$$\frac{2}{3} + \frac{1}{5} + \frac{1}{3} + \frac{4}{5}$$

$$\left(\frac{2}{3} + \frac{1}{3}\right) + \left(\frac{1}{5} + \frac{4}{5}\right)$$

$$1 + 2$$

$$3$$

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$$\begin{array}{r} 10 - 3 - 2 - 1 \\ (10 - 3) - (2 + 1) \quad \left\{ \begin{array}{l} 10 - (3 + 2 + 1) \\ 10 - 6 \\ 4 \qquad \qquad \qquad 4 \end{array} \right. \end{array}$$

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$$5\frac{7}{8} - \frac{1}{2} - \frac{7}{8} - \frac{1}{2}$$

$$\begin{array}{r} (5\frac{7}{8} - \frac{7}{8}) - (\frac{1}{2} + \frac{1}{2}) \quad \left\{ \begin{array}{l} 5\frac{7}{8} - (\frac{1}{2} + \frac{1}{2} + \frac{7}{8}) \\ 5\frac{7}{8} - (2 + \frac{7}{8}) \\ 5\frac{7}{8} - 2\frac{7}{8} \\ 3 \end{array} \right. \end{array}$$

$$2\frac{5}{6} - \frac{1}{3} + \frac{1}{6}$$

$$(2\frac{5}{6} + \frac{1}{6}) - \frac{1}{3}$$

$$3 - \frac{1}{3}$$

$$= 2\frac{2}{3}$$

$$\frac{14}{3} + \text{---} + \frac{9}{4} = 8\frac{11}{12}$$

$$-\frac{14}{3} - \frac{9}{4} = -\frac{14}{3} - \frac{9}{4}$$

$$\begin{aligned} &= 8\frac{11}{12} - \left(\frac{14}{3} + \frac{9}{4}\right) \\ &= 8\frac{11}{12} - \left(4\frac{2}{3} + 2\frac{1}{4}\right) \\ &\quad - \left[6\left(\frac{2 \times 4}{3 \times 4}\right) + \left(\frac{1 \times 3}{4 \times 3}\right)\right] \\ &\quad \quad \quad \frac{8}{12} + \frac{3}{12} \end{aligned}$$

$$8\frac{11}{12} - \left(6\frac{11}{12}\right)$$

$$= 2$$

Whole #  
4  
3 | 14  
   12  
   2 - numerator  
      denominator

2  
4 | 9  
   8  
   1

$$\underline{\quad} - 15 - 4\frac{1}{2} = 7\frac{3}{5}$$

$$= 7\frac{3}{5} + 15 + 4\frac{1}{2}$$

$$= 26 + \frac{3}{5} + \frac{1}{2}$$

$$= 26 + \left(\frac{3 \times 2}{5 \times 2}\right) + \left(\frac{1 \times 5}{2 \times 5}\right)$$

$$26 + \frac{6}{10} + \frac{5}{10}$$

$$= 26 + \frac{11}{10} = 26 + \frac{10}{10} + \frac{1}{10}$$

$$= 27\frac{1}{10}$$

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$$6\frac{3}{4} + \frac{3}{5} - \underline{\quad} = 5$$

$$\left(6\frac{3}{4} + \frac{3}{5}\right) - 5 = \underline{\quad}$$

$$6 + \left(\frac{3 \times 5}{4 \times 5}\right) + \left(\frac{3 \times 4}{5 \times 4}\right)$$

$$\frac{15}{20} + \frac{12}{20}$$

$$6 + \frac{27}{20} - 5$$

$$6 + \frac{20}{20} + \frac{7}{20} - 5$$

$$7\frac{7}{20} - 5$$

$$2\frac{7}{20}$$

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Rearrange the terms so that you can add or subtract mentally. Then, solve.

a.  $\frac{1}{4} + 2\frac{2}{3} + \frac{7}{4} + \frac{1}{3}$

b.  $2\frac{3}{5} - \frac{3}{4} + \frac{2}{5}$

$$\left(2\frac{3}{5} + \frac{2}{5}\right) - \frac{3}{4}$$

c.  $4\frac{3}{7} - \frac{3}{4} - 2\frac{1}{4} - \frac{3}{7}$

d.  $\frac{5}{6} + \frac{1}{3} - \frac{4}{3} + \frac{1}{6}$

$$\left(4\frac{3}{7} - \frac{3}{7}\right) - \left(\frac{3}{4} + 2\frac{1}{4}\right)$$

2. Fill in the blank to make the statement true.

a.  $11\frac{2}{5} - 3\frac{2}{3} - \frac{11}{3} = \underline{\hspace{2cm}}$

$$11\frac{2}{5} - \left(3\frac{2}{3} + \frac{11}{3}\right)$$

b.  $11\frac{7}{8} + 3\frac{1}{5} - \underline{\hspace{2cm}} = 15$

$$\left(11\frac{7}{8} + 3\frac{1}{5}\right) - 15$$