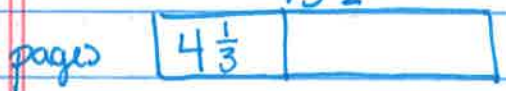
M3·L12 – Subtracting Fractions

AP.

Max needs to read 11 1/6 more pages.



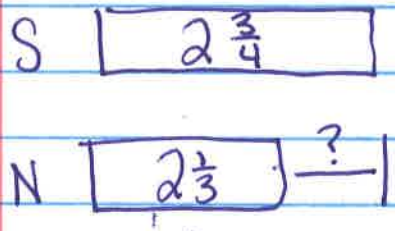
$15\frac{1}{2} - 4\frac{1}{3}$

$11 + \left(\frac{1 \times 3}{2 \times 3}\right) - \left(\frac{1 \times 2}{3 \times 2}\right)$

$11 + \frac{3}{6} - \frac{2}{6}$

$11\frac{1}{6}$

Sam ran 5/12 more miles than Nathan.



$2\frac{3}{4} - 2\frac{1}{3}$

$\frac{3}{4} - \frac{1}{3}$

$\left(\frac{3 \times 3}{4 \times 3}\right) - \left(\frac{1 \times 4}{3 \times 4}\right)$

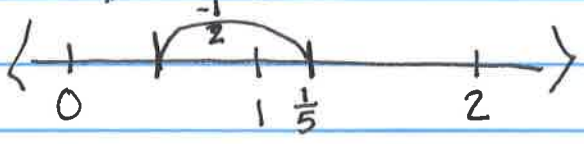
$\frac{9}{12} - \frac{4}{12}$

$\frac{5}{12}$

M3·L12 - Subtracting Mixed Numbers

$\left|\frac{1}{2} - \frac{1}{5}\right|$

$\left|\frac{1}{5} - \frac{1}{2}\right|$



$$\begin{array}{r} 3.75 \\ -\ 0.65 \\ \hline 3.10 \end{array}$$

$$\begin{array}{r} {}^{2}\cancel{3}.{}^{16}65 \\ -\ 0.75 \\ \hline 2.90 \end{array}$$

$\left|\frac{3}{4} - \frac{6}{7}\right|$

$\left|\frac{3}{4} - \frac{6}{7}\right|$

$\frac{7}{7} \cdot \frac{3}{4} - \frac{6}{7}$

$\frac{1}{7} + \frac{3}{4}$

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

$\frac{4}{28} + \frac{21}{28}$

$\frac{25}{28}$

$\left|\frac{3}{4} - \frac{6}{7}\right|$

$\not{1} + \left(\frac{3 \times 7}{4 \times 7}\right) - \left(\frac{6 \times 4}{7 \times 4}\right)$

$\left(\frac{28}{28} + \frac{21}{28}\right) - \frac{24}{28}$

$\frac{49}{28} - \frac{24}{28}$

$\frac{25}{28}$

$3\frac{1}{4} - 2\frac{1}{2}$

$3\frac{1}{4} - 2\frac{1}{2}$

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

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

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

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

$\frac{3}{4}$

$3\frac{1}{4} - 2\frac{1}{2}$

$1\frac{1}{4} - \frac{1}{2}$

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

$\frac{4}{4} + \frac{1}{4} - \frac{2}{4}$

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

$4\frac{1}{2} - 3\frac{2}{3}$

$4\frac{1}{2} - 3\frac{2}{3}$

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

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

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

$\frac{2}{6} + \frac{3}{6}$

$\frac{5}{6}$

$4\frac{1}{2} - 3\frac{2}{3}$

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

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

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

$\frac{9}{6} - \frac{4}{6}$

$\frac{5}{6}$

Name _____ Date _____

1. Subtract.

a. $3\frac{1}{5} - 2\frac{1}{4} =$

b. $4\frac{2}{5} - 3\frac{3}{4} =$ $1\frac{2}{5} - \frac{3}{4}$

$1 + \left(\frac{2\times4}{5\times4}\right) - \left(\frac{3\times5}{4\times5}\right)$

$\left(\frac{20}{20} + \frac{8}{20}\right) - \frac{15}{20}$

$\frac{28}{20} - \frac{15}{20} = \frac{13}{20}$

c. $7\frac{1}{5} - 4\frac{1}{3} =$ $3\frac{1}{5} - \frac{1}{3}$

$3 + \left(\frac{1\times3}{5\times3}\right) - \left(\frac{1\times5}{3\times5}\right)$

$2 + \left(\frac{15}{15} + \frac{3}{15}\right) - \frac{5}{15}$

$2 + \frac{18}{15} - \frac{5}{15} =$

$2\frac{13}{15}$

d. $7\frac{2}{5} - 5\frac{2}{3} =$ $2\frac{2}{5} - \frac{2}{3}$

$2 + \left(\frac{2\times3}{5\times3}\right) - \left(\frac{2\times5}{3\times5}\right)$

$1 + \left(\frac{15}{15} + \frac{6}{15}\right) - \frac{10}{15}$

$1 + \frac{21}{15} - \frac{10}{15} = \boxed{1\frac{11}{15}}$

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

$1\frac{2}{7} - \frac{1}{3}$

$1 + \left(\frac{2\times3}{7\times3}\right) - \left(\frac{1\times7}{3\times7}\right)$

$\left(\frac{21}{21} + \frac{6}{21}\right) - \frac{7}{21}$

$\frac{27}{21} - \frac{7}{21} = \frac{20}{21}$

f. $9\frac{2}{3} - 2\frac{6}{7} =$ $7\frac{2}{3} - \frac{6}{7}$

$7 + \left(\frac{2\times7}{3\times7}\right) - \left(\frac{6\times3}{7\times3}\right)$

$6 + \left(\frac{21}{21} + \frac{14}{21}\right) - \frac{18}{21}$

$6 + \frac{35}{21} - \frac{18}{21} = \boxed{6\frac{17}{21}}$