

Fractions: Subtracting mixed numbers with different denominators.

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Date:

Name:

Solve each problem below, showing all your working. Use re-grouping method of working.

[1] $2\frac{4}{5} - 1\frac{1}{9}$	[2] $3\frac{3}{7} - \frac{4}{9}$	[3] $6\frac{2}{6} - 1\frac{4}{11}$
[4] $8\frac{1}{6} - 4\frac{7}{8}$	[5] $1\frac{3}{4} - \frac{5}{6}$	[6] $2\frac{1}{5} - 1\frac{4}{8}$
[7] $3\frac{2}{3} - 1\frac{5}{8}$	[8] $12\frac{3}{4} - 11\frac{5}{7}$	[9] $3\frac{2}{7} - 1\frac{3}{5}$
[10] $4 - 1\frac{5}{9}$	[11] $6\frac{2}{5} - 4\frac{1}{3}$	[12] $2\frac{1}{9} - 1\frac{3}{4}$

ANSWERS

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<p>[1]</p> $2\frac{4}{5} - 1\frac{1}{9}$ <p>$\frac{4}{5} - \frac{1}{9}$ $\frac{36-5}{45} = \frac{31}{45}$ $= 1\frac{31}{45}$</p>	<p>[2]</p> $3\frac{3}{7} - \frac{4}{9}$ <p>$\frac{3}{7} - \frac{4}{9}$ $\frac{27-28}{63} = -\frac{1}{63}$ $= 2\frac{26}{63}$</p>	<p>[3]</p> $6\frac{2}{6} - 1\frac{4}{11}$ <p>$\frac{2}{6} - \frac{4}{11}$ $\frac{22-24}{66} = -\frac{2}{66}$ $= 4\frac{64}{66} = 4\frac{32}{33}$</p>
<p>[4]</p> $8\frac{1}{6} - 4\frac{7}{8} = 7 - 4 = 3$ <p>LCM: 24 $\frac{1 \times 4}{6 \times 4} = \frac{4}{24}$ $\frac{7 \times 3}{8 \times 3} = \frac{21}{24}$ $\frac{4-21}{24} = -\frac{17}{24}$ $= 3\frac{7}{24}$</p>	<p>[5]</p> $3\frac{3}{4} - \frac{5}{6}$ <p>LCM: 12 $\frac{3 \times 3}{4 \times 3} = \frac{9}{12}$ $\frac{5 \times 2}{6 \times 2} = \frac{10}{12}$ $\frac{9-10}{12} = -\frac{1}{12}$ $= 2\frac{11}{12}$</p>	<p>[6]</p> $2\frac{1}{5} - 1\frac{4}{8} = 1 - 1 = 0$ <p>LCM: 40 $\frac{1 \times 8}{5 \times 8} = \frac{8}{40}$ $\frac{4 \times 5}{8 \times 5} = \frac{20}{40}$ $\frac{8-20}{40} = -\frac{12}{40} = -\frac{3}{10}$ $= 0\frac{7}{10}$</p>
<p>[7]</p> $3\frac{2}{3} - 1\frac{5}{8} = 3 - 1 = 2$ <p>LCM: 24 $\frac{2 \times 8}{3 \times 8} = \frac{16}{24}$ $\frac{5 \times 3}{8 \times 3} = \frac{15}{24}$ $\frac{16-15}{24} = \frac{1}{24}$ $= 2\frac{1}{24}$</p>	<p>[8]</p> $12\frac{3}{4} - 11\frac{5}{7} = 12 - 11 = 1$ <p>LCM: 28 $\frac{3 \times 7}{4 \times 7} = \frac{21}{28}$ $\frac{5 \times 4}{7 \times 4} = \frac{20}{28}$ $\frac{21-20}{28} = \frac{1}{28}$ $= 1\frac{1}{28}$</p>	<p>[9]</p> $2\frac{2}{7} - 1\frac{3}{5} = 2 - 1 = 1$ <p>LCM: 35 $\frac{2 \times 5}{7 \times 5} = \frac{10}{35}$ $\frac{3 \times 7}{5 \times 7} = \frac{21}{35}$ $\frac{10-21}{35} = -\frac{11}{35}$ $= 1\frac{24}{35}$</p>
<p>[10]</p> $4 - 1\frac{5}{9} = 3 - 1 = 2$ <p>LCM: 9 $\frac{5}{9}$ $3 - \frac{5}{9} = 2\frac{4}{9}$</p>	<p>[11]</p> $6\frac{2}{5} - 4\frac{1}{3} = 6 - 4 = 2$ <p>LCM: 15 $\frac{2 \times 3}{5 \times 3} = \frac{6}{15}$ $\frac{1 \times 5}{3 \times 5} = \frac{5}{15}$ $\frac{6-5}{15} = \frac{1}{15}$ $= 2\frac{1}{15}$</p>	<p>[12]</p> $2\frac{1}{9} - 1\frac{3}{4} = 2 - 1 = 1$ <p>LCM: 36 $\frac{1 \times 4}{9 \times 4} = \frac{4}{36}$ $\frac{3 \times 9}{4 \times 9} = \frac{27}{36}$ $\frac{4-27}{36} = -\frac{23}{36}$ $= 1\frac{13}{36}$</p>