Fractions: Adding fractions with different denominators.

Date: Name:

Solve each problem below, showing all your working. Convert to mixed numbers if necessary.

[1] $$\frac{8}{18} + \frac{10}{19}$$	[2] $$\frac{5}{6} + \frac{6}{9}$$	[3] $$\frac{2}{10} + \frac{5}{7}$$
[4] $$\frac{3}{8} + \frac{9}{14}$$	[5] $$\frac{1}{5} + \frac{2}{10}$$	[6] $$\frac{8}{13} + \frac{1}{4}$$
[7] $$\frac{5}{7} + \frac{6}{8}$$	[8] $$\frac{6}{9} + \frac{10}{18}$$	[9] $$\frac{9}{19} + \frac{9}{12}$$
[10] $$\frac{9}{15} + \frac{9}{18}$$	[11] $$\frac{8}{16} + \frac{8}{17}$$	[12] $$\frac{1}{6} + \frac{6}{9}$$

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[1]	[2]	[3]
$\left(\dfrac{8\,^4}{18\,_9}\times\dfrac{10}{19}\right)$ $\overset{819}{\underset{171}{\times 9}}$ $\overset{319}{\underset{76}{\times 4}}$ $\dfrac{76\ +\ 90}{171}=\boxed{\dfrac{166}{171}}$	$\left(\dfrac{5}{6}+\dfrac{8\,^2}{9\,_3}\right)$ $\dfrac{15\ +\ 12}{18}=\dfrac{27}{18}=1\dfrac{9}{18}$ $=\boxed{1\dfrac{1}{2}}$	$\dfrac{1\,2}{5\,10}+\dfrac{5}{7}$ $\dfrac{7+25}{35}=\boxed{\dfrac{32}{35}}$
[4]	[5]	[6]
$\overset{3\,14}{\underset{112}{\times 8}}$ $\overset{14}{\underset{42}{\times 3}}$ $\overset{42}{\underset{114}{72}}$ $2\overline{)112}\ 56$ $\left(\dfrac{3}{8}\times\dfrac{9}{14}\right)$ $\dfrac{42+72}{112}=\dfrac{114}{112}=1\dfrac{2}{112}$ $=\boxed{1\dfrac{1}{56}}$	$\left(\dfrac{1}{5}\times\dfrac{21}{105}\right)$ $\dfrac{5\ +5}{25}=\dfrac{10\div5}{25\div5}=\boxed{\dfrac{2}{5}}$	$\left(\dfrac{8}{13}\times\dfrac{1}{4}\right)$ $\overset{13}{\underset{52}{\times4}}$ $\dfrac{32+13}{52}=\boxed{\dfrac{45}{52}}$
[7]	[8]	[9]
$\dfrac{5}{7}+\dfrac{8\,^3}{8\,4}$ $\dfrac{20+21}{28}=\boxed{\dfrac{41}{28}}$	$\dfrac{6}{9}+\dfrac{10\,5}{18\,9}$ $\dfrac{54+45}{81}=\dfrac{99}{81}=1\dfrac{18}{81}$ $=\boxed{1\dfrac{2}{9}}$	$\overset{3\,9}{\underset{76}{\times4}}$ $\left(\dfrac{9}{19}\times\dfrac{9\,3}{12\,4}\right)$ $\dfrac{36+57}{76}=\dfrac{93}{76}=\boxed{1\dfrac{17}{76}}$ $\overset{2\,19}{\underset{5-7}{\times3}}$ $\overset{1\,36}{\underset{93}{57}}$ $\overset{8}{\underset{17}{-76}}$
[10]	[11]	[12]
$\left(\dfrac{9}{15}\times\dfrac{9\,1}{18\,2}\right)$ $\dfrac{18\ +\ 15}{30}=\dfrac{33}{30}=1\dfrac{3}{30}$ $=\boxed{1\dfrac{1}{10}}$	$\dfrac{1}{2}\dfrac{8}{16}+\dfrac{8}{17}$ $\dfrac{17+16}{34}=\boxed{\dfrac{33}{34}}$	$\dfrac{1}{6}+\dfrac{8\,^2}{9\,3}$ $\dfrac{3+12}{18}=\dfrac{15}{18}=\boxed{\dfrac{5}{6}}$