N6.12.1 | Fractions
Mixed exercises
non calculator

Work out the following. Give the answer as a fraction or mixt number in simplest form.

$\frac{2}{3}+\frac{5}{6}\left(\frac{3}{7}-\frac{2}{21}\right)=$ $\frac{2}{3}+\frac{5}{6}\left(\frac{9-2}{21}\right)=$ $\frac{2}{3}+\frac{5}{6}\times\frac{\cancel{7}^{1}}{\cancel{21}_{3}}=$ $\frac{2}{3}+\frac{5}{18}=$ $\frac{12+5}{18}=\frac{17}{18}$	$\frac{1}{2}+4\frac{2}{3}}{\frac{5}{7}\div\frac{15}{7}}=\frac{\frac{1}{2}+\frac{14}{3}}{\frac{\cancel{5}^{1}}{\cancel{7}_{1}}\times\frac{\cancel{7}^{1}}{15_{3}}}=\frac{\frac{3+28}{6}}{\frac{1}{3}}=\frac{\frac{31}{6}}{\frac{1}{3}}=$ $\frac{31}{6}\div\frac{1}{3}=\frac{31}{\cancel{6}_{2}}\times\frac{\cancel{3}^{1}}{1}=$ $\frac{31}{2}=15\frac{1}{2}$	$1-\frac{1-\frac{2}{3}}{2-\frac{5}{6}}=1-\frac{\frac{1}{2}-\frac{2}{3}}{\frac{1}{1}-\frac{5}{6}}=1-\frac{\frac{3-2}{3}}{\frac{12-5}{6}}=$ $1-\frac{\frac{1}{3}}{\frac{7}{6}}=1-\frac{1}{3}\div\frac{7}{6}=1-$ $\frac{1}{\cancel{3}_{1}}\times\frac{\cancel{6}^{2}}{7}=$ $1-\frac{2}{7}=\frac{1}{1}-\frac{2}{7}=\frac{7-1}{7}=\frac{6}{7}$
$9\frac{1}{2}\div\left(10-\frac{1}{2}\right)=$	$\frac{70}{29}\div\frac{1}{\frac{2}{5}+\frac{3}{7}}=$	$\frac{1}{11}-2\div\frac{3+\frac{2}{3}}{2}=$
$3+\frac{2}{3+\frac{2}{3}}\times1\frac{5}{6}=$	$\frac{\left(\frac{1}{2}+\frac{3}{7}\right)\div\frac{13}{28}}{\frac{8}{11}+\frac{15}{121}\times\frac{11}{5}}-2=$	$\left(\frac{5}{16}-\frac{36}{48}\div\frac{4}{5}+\frac{5}{8}\right)-\frac{1}{2}=$
$-3-\frac{21}{48}\div\frac{7}{16}-\frac{52}{34}\times\frac{17}{26}=$	$\left(2\frac{5}{7}+\frac{3}{14}\right)\div\frac{41}{28}-\frac{1}{3}=$	$\frac{1}{\frac{1}{2}}\times100-\frac{\frac{1}{2}}{2}\div\frac{1}{400}=$
$\frac{5}{9}+3\div\frac{1}{\frac{1}{3}}-\frac{10}{18}=$	$\frac{\frac{7}{12}+\frac{2}{5}\times2\frac{3}{6}}{\frac{19}{24}}=$	$\left(\frac{3}{35}+\frac{5}{7}-\frac{4}{5}\right)+\frac{3}{4}\div\frac{3}{\frac{1}{3}+3}=$