Add and subtract fractions with unlike denominators

Add or subtract the following fractions.
a.

$$
\begin{aligned}
& \frac{3}{4}+\frac{1}{5}: \begin{array}{l}
\text { Multiples of } 4: 4,8,12,16,20 \ldots \\
\begin{array}{l}
\text { Multiples of } 5: 5,10,15,20,25 \ldots \\
\text { The } L C M \text { of } 4 \text { and } 5 \text { is } 20
\end{array} \\
\frac{15}{20}+\frac{4}{20}=\frac{15+4}{20}=\frac{19}{20} \quad \text { Therefore, } \frac{3}{4}+\frac{1}{5}=\frac{19}{20}
\end{array} \quad \text { and } \frac{1 \times 4}{5 \times 4}=\frac{4}{20}
\end{aligned}
$$

b.

$$
\frac{3}{4}-\frac{1}{5}
$$

Add the following fractions and write the correct answer.
c. $\frac{5}{12}+\frac{1}{3}=\frac{9}{12}$
$\frac{3}{5}+\frac{6}{10}=$
$\frac{11}{20}+\frac{7}{8}=$
d. $\frac{6}{10}+\frac{17}{20}=$

$$
\frac{17}{20}+\frac{22}{25}=
$$

$$
\frac{13}{18}+\frac{1}{27}=
$$

Subtract the following fractions and write the correct answer.
e. $\frac{2}{3}-\frac{4}{7}=$
$\frac{6}{9}-\frac{3}{5}=$
$\frac{7}{9}-\frac{8}{15}=$
f. $\frac{3}{4}-\frac{5}{9}=$
$\frac{2}{3}-\frac{7}{11}=$

$$
\frac{4}{5}-\frac{1}{10}=
$$

## Solution

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Name: Class:

Add and subtract fractions with unlike denominators
a.
i Multiples of $4: 4,8,12,16,20 \ldots$

$$
\begin{aligned}
& \frac{3}{4}+\frac{1}{5} \quad \begin{array}{l}
\text { Multiples of } 5: 5,10,15,20,25 \ldots \\
\text { The LCM of } 4 \text { and } 5 \text { is } 20
\end{array} \\
& \frac{15}{20}+\frac{4}{20}=\frac{15+4}{20}=\frac{19}{20} \quad \text { Therefore, } \frac{3}{4}+\frac{1}{5}=\frac{19}{20}
\end{aligned}
$$

b.

$$
\frac{3}{4}-\frac{1}{5}: \text { Multiples of } 5: 5,10,15,20,25 \ldots \quad \frac{3 \times 5}{4 \times 5}=\frac{15}{20} \text { and } \frac{1 \times 4}{5 \times 4}=\frac{4}{20}
$$

- The LCM of 4 and 5 is 20
$\frac{15}{20}-\frac{4}{20}=\frac{15-4}{20}=\frac{11}{20}$
Therefore, $\frac{3}{4}-\frac{1}{5}=\frac{11}{20}$

Add the following fractions and write the correct answer.
c. $\frac{5}{12}+\frac{1}{3}=\frac{9}{12}$
$\frac{3}{5}+\frac{6}{10}=\frac{6}{5}$
$\frac{11}{20}+\frac{7}{8}=\frac{57}{40}$
d. $\frac{6}{10}+\frac{17}{20}=\frac{29}{20}$
$\frac{17}{20}+\frac{22}{25}=\frac{173}{100}$

$$
\frac{13}{18}+\frac{1}{27}=\frac{41}{54}
$$

Subtract the following fractions and write the correct answer.
e. $\frac{2}{3}-\frac{4}{7}=\frac{2}{21}$
$\frac{6}{9}-\frac{3}{5}=\frac{1}{15}$
$\frac{7}{9}-\frac{8}{15}=\frac{11}{45}$
f. $\frac{3}{4}-\frac{5}{9}=\frac{7}{36}$

$$
\frac{2}{3}-\frac{7}{11}=\frac{1}{33}
$$

$$
\frac{4}{5}-\frac{1}{10}=\frac{7}{10}
$$

