# A JESUIT CHRISTIAN MINORITY INSTITUTION 

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1. Compare the like fractions.
a) $\frac{8}{15} \square \frac{12}{15}$

Since, $8<12$
So, $\frac{8}{15} \longrightarrow \frac{12}{15}$
b) $\frac{17}{24} \square \frac{13}{24}$

Since, $17>13$
So, $\frac{17}{24} \longrightarrow \frac{13}{24}$
2. Circle the proper fractions.
a) $\frac{7}{3}$

$\frac{8}{5}$
b) $\frac{17}{9} \quad \frac{12}{7}$
$\frac{3}{5}$
3. Circle the improper fractions.
a) $\frac{3}{5}$
$\frac{2}{3}$
$\frac{15}{6}$
b) $\frac{5}{7}$

$\frac{4}{7}$
4. Circle the unit fractions.
a) $\frac{4}{9}$
b) $\frac{7}{9}$
$\frac{15}{17}$ $\frac{1}{7}$
5. Complete the equivalent fractions.
a) $\frac{2}{5}=\frac{\mathbf{4}}{10}=\frac{6}{15}=\frac{\mathbf{8}}{20}$
b) $\frac{3}{7}=\frac{6}{14}=\frac{9}{21}=\frac{12}{28}$

## 6. Convert to like fractions and compare.

a) $\frac{3}{7} \square \frac{4}{9}$
L. C. M. of 7 and 9 is 63
$\frac{3}{7}=\frac{3 \times 9}{7 \times 9}=\frac{27}{63}$
$\frac{4}{9}=\frac{4 \times 7}{9 \times 7}=\frac{28}{63}$

$$
\text { Since, } 27<28
$$

$$
\text { So, } \frac{27}{63}<\frac{28}{63}
$$

$$
=\frac{3}{7}<\frac{4}{9}
$$

Ans. $\frac{3}{7} \leq \frac{4}{9}$
b) $\frac{6}{9} \square \frac{3}{8}$
L. C. M. of 9 and 8 is 72

$$
\begin{aligned}
& \frac{6}{9}=\frac{6 \times 8}{9 \times 8}=\frac{48}{72} \\
& \frac{3}{8}=\frac{3 \times 9}{8 \times 9}=\frac{27}{72}
\end{aligned}
$$

Since, 48 > 27
So, $\frac{48}{72}>\frac{27}{72}$
$=\frac{6}{9}>\frac{3}{8}$
Ans. $\frac{6}{9}>\frac{3}{8}$
7. Reduce the following fractions into their lowest forms.
a) $\frac{36}{72}$
H. C. F. of 36 and 72 is 36

$$
\frac{36}{72}=\frac{36 \div 36}{72 \div 36}=\frac{1}{2}
$$

Hence, $\frac{\mathbf{1}}{\mathbf{2}}$ is the lowest form of $\frac{36}{72}$
b) $\frac{24}{80}$
H. C. F. of 24 and 80 is 8
$\frac{24}{80}=\frac{24 \div 8}{80 \div 8}=\frac{3}{10}$
Hence, $\frac{\mathbf{3}}{\mathbf{1 0}}$ is the lowest form of $\frac{24}{80}$
8. Add and reduce to the lowest forms.
a) $\frac{3}{5}+\frac{2}{6}$
$=\frac{3 \times 6}{5 \times 6}+\frac{2 \times 5}{6 \times 5}$
$=\frac{18}{30}+\frac{10}{30}$
$=\frac{18+10}{30}$
$=\frac{28}{30}$
H. C. F. of 28 and 30 is 2
$\frac{28}{30}=\frac{28 \div 2}{30 \div 2}=\frac{14}{15}$
Hence, $\frac{14}{15}$ is the lowest form of $\frac{28}{30}$
b) $\frac{2}{5}+\frac{3}{9}$

$$
\begin{aligned}
& =\frac{2 \times 9}{5 \times 9}+\frac{3 \times 5}{9 \times 5} \\
& =\frac{18}{45}+\frac{15}{45} \\
& =\frac{18+15}{45} \\
& =\frac{33}{45}
\end{aligned}
$$

H. C. F. of 33 and 45 is 3
$\frac{33}{45}=\frac{33 \div 3}{45 \div 3}=\frac{11}{15}$
Hence, $\frac{11}{15}$ is the lowest form of $\frac{33}{45}$
9. Subtract the following and reduce to the lowest forms.
a) $\frac{5}{6}-\frac{2}{3}$
$=\frac{5 \times 3}{6 \times 3}-\frac{2 \times 6}{3 \times 6}$
$=\frac{15}{18}-\frac{12}{18}$
$=\frac{15-12}{18}$
$=\frac{3}{18}$
H. C. F. of 3 and 18 is 3
$\frac{3}{18}=\frac{3 \div 3}{18 \div 3}=\frac{1}{6}$
Hence, $\frac{1}{6}$ is the lowest form of $\frac{3}{18}$
b) $\frac{9}{10}-\frac{3}{5}$

$$
=\frac{9 \times 5}{10 \times 5}-\frac{3 \times 10}{5 \times 10}
$$

$$
=\frac{45}{50}-\frac{30}{50}
$$

$$
=\frac{45-30}{50}
$$

$$
=\frac{15}{50}
$$

H. C. F. of 15 and 50 is 5
$\frac{15}{50}=\frac{15 \div 5}{50 \div 5}=\frac{3}{10}$
Hence, $\frac{3}{10}$ is the lowest form of $\frac{15}{50}$

## 10. Solve:-

a) $2 \frac{3}{5}+3 \frac{2}{4}$

$$
\begin{aligned}
& =\frac{5 \times 2+3}{5}+\frac{4 \times 3+2}{4} \\
& =\frac{13}{5}+\frac{14}{4} \\
& =\frac{13 \times 4}{5 \times 4}+\frac{14 \times 5}{4 \times 5} \\
& =\frac{52}{20}+\frac{70}{20} \\
& =\frac{52+70}{20} \\
& =\frac{122}{20} \\
& =6 \frac{2}{20}
\end{aligned}
$$

Ans. $6 \frac{2}{20}$
b) $3 \frac{1}{6}+2 \frac{2}{3}$

$$
\begin{aligned}
& =\frac{6 \times 3+1}{6}+\frac{3 \times 2+2}{3} \\
& =\frac{19}{6}+\frac{8}{3} \\
& =\frac{19 \times 3}{6 \times 3}+\frac{8 \times 6}{3 \times 6} \\
& =\frac{57}{18}+\frac{48}{18} \\
& =\frac{57+48}{18} \\
& =\frac{105}{18} \\
& =5 \frac{15}{18}
\end{aligned}
$$

Ans. $5 \frac{15}{18}$

