Subtraction of Fractions

This is the 3rd Power Point. Make sure you have done the other 2 before doing this one.

Subtraction of fractions is the same as addition of fractions. The fractions MUST be the same name.

- $\frac{7}{8} - \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$

- $\frac{3}{4} - \frac{1}{2} =$ $\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$

- $\frac{3}{4} - \frac{1}{3} =$ $\frac{9}{12} - \frac{4}{12} = \frac{5}{12}$

Now try these

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

Answers

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

Subtraction of Mixed Numbers – We do the same as we did for addition of mixed numbers

- $4\frac{1}{2} - 1\frac{1}{4}$
- $3\left(\frac{1}{2} - \frac{1}{4}\right)$ *Subtract your whole numbers*
- $3\left(\frac{2}{4} - \frac{1}{4}\right)$ *rename your fractions* = $3\frac{1}{4}$

- $5\frac{2}{3} - 2\frac{1}{4}$
- $3\left(\frac{2}{3} - \frac{1}{4}\right)$
- $3\left(\frac{8}{12} - \frac{2}{12}\right) = 3\frac{6}{12} = 3\frac{1}{2}$

Now try these

- $2\frac{3}{4} - 1\frac{1}{2} =$
- $2\frac{7}{8} - 1\frac{1}{4} =$
- $5\frac{3}{4} - 1\frac{1}{6} =$
- $3\frac{7}{9} - 1\frac{1}{3} =$

$3\frac{5}{6} - 1\frac{2}{3} =$

$6\frac{1}{3} - 1\frac{1}{4} =$

$2\frac{1}{2} - 1\frac{1}{5}$

$4\frac{4}{5} - 1\frac{1}{2} =$

Answers – you might need to tidy some of the answers

- $2\frac{3}{4} - 1\frac{1}{2} = 1\frac{1}{4}$
- $2\frac{7}{8} - 1\frac{1}{4} = 1\frac{5}{8}$
- $5\frac{3}{4} - 1\frac{1}{6} = 4\frac{7}{12}$
- $3\frac{7}{9} - 1\frac{1}{3} = 2\frac{4}{9}$

$3\frac{5}{6} - 1\frac{2}{3} = 2\frac{1}{6}$

$6\frac{1}{3} - 1\frac{1}{4} = 5\frac{1}{12}$

$2\frac{1}{2} - 1\frac{1}{5} = 1\frac{3}{10}$

$4\frac{4}{5} - 1\frac{1}{2} = 3\frac{3}{10}$

Regrouping when subtracting

- $3\frac{1}{6} - 1\frac{3}{4}$

- $2\ \left(\frac{1}{6} - \frac{3}{4}\right)$ subtract the whole numbers – then rename your fractions

- $2\ \left(\frac{2}{12} - \frac{9}{12}\right)$ You can't take 9 from 2 so you must regroup. Take 1 from the whole numbers – rename it to $\frac{12}{12}$ $and\ add\ it\ to\ the\ \frac{2}{12}$ = $\frac{14}{12}$

- $1\ \left(\frac{14}{12} - \frac{9}{12} = \frac{5}{12}\right)$ Answer $1\frac{5}{12}$

Now try these sums

- $4\frac{3}{5} - 1\frac{4}{5} =$
- $5\frac{3}{8} - 1\frac{5}{8} =$
- $6\frac{1}{3} - 2\frac{2}{3} =$
- $5\frac{3}{10} - 1\frac{7}{10} =$
- $3\frac{3}{7} - 1\frac{4}{7} =$
- $4\frac{1}{4} - \frac{3}{4} =$
- $3\frac{4}{9} - 1\frac{7}{9} =$
- $3\frac{1}{5} - 2\frac{4}{5} =$

Answers – you might need to tidy some of the answers

- $4\frac{3}{5} - 1\frac{4}{5} = 2\frac{4}{5}$
- $6\frac{1}{3} - 2\frac{2}{3} = 3\frac{2}{3}$
- $3\frac{3}{7} - 1\frac{4}{7} = 1\frac{6}{7}$
- $3\frac{4}{9} - 1\frac{7}{9} = 1\frac{6}{9}$

$5\frac{3}{8} - 1\frac{5}{8} = 3\frac{6}{8}$

$5\frac{3}{10} - 1\frac{7}{10} = 3\frac{6}{10}$

$4\frac{1}{4} - \frac{3}{4} = 3\frac{2}{4}$

$3\frac{1}{5} - 2\frac{4}{5} = \frac{2}{5}$

More subtraction

- $5\frac{1}{6} - 2\frac{3}{4} =$
- $4\frac{1}{5} - 2\frac{1}{3} =$
- $5\frac{1}{4} - 2\frac{5}{8} =$
- $4\frac{1}{2} - 2\frac{3}{5} =$

$3\frac{7}{10} - 1\frac{4}{5} =$

$3\frac{1}{4} - 1\frac{5}{8} =$

$6\frac{1}{3} - 3\frac{3}{4} =$

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

Answers – don't forget that some may need to be tidied

- $5\frac{1}{6} - 2\frac{3}{4} = 2\frac{5}{12}$
- $4\frac{1}{5} - 2\frac{1}{3} = 1\frac{13}{15}$
- $5\frac{1}{4} - 2\frac{5}{8} = 2\frac{5}{8}$
- $4\frac{1}{2} - 2\frac{3}{5} = 1\frac{9}{10}$

$3\frac{7}{10} - 1\frac{4}{5} = 1\frac{9}{10}$

$3\frac{1}{4} - 1\frac{5}{8} = 1\frac{5}{8}$

$6\frac{1}{3} - 3\frac{3}{4} = 2\frac{7}{12}$

$3\frac{1}{3} - 1\frac{3}{4} = 1\frac{7}{12}$

A few problems to solve.

- Dad bought $3\frac{1}{2}\ m$ of twine. He cut $1\frac{4}{5}\ m$ to tie around the rose bushes. What fraction of twine had he left?

- Rose bought $2\frac{1}{2}$ litres of juice. She drank $\frac{3}{8}$ of it. What fraction had she left?

Now check the answers.

- Twine
- $3\frac{1}{2} - 1\frac{4}{5}$
- $2\left(\frac{1}{2} - \frac{4}{5}\right) = 2\left(\frac{5}{10} - \frac{8}{10}\right)$
- Regroup $= 1\left(\frac{15}{10} - \frac{8}{10}\right) = 1\frac{7}{10}m$

- Orange Juice
- $2\frac{1}{2} - \frac{3}{8} = \quad 2\left(\frac{4}{8} - \frac{3}{8}\right) = 2\frac{1}{8}\ litres\ left$

Well Done

- Go over this Power Point a few times to keep reminding yourself of subtraction of fractions.