Fractions

Addition of Fractions. This is Power Point 2.

Make sure you do Power Point 1 BEFORE doing this one.
Good luck.

Addition of Fractions

- When the fractions have the same name we add the numerators.
- Don't forget to tidy your answers –

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

- $\frac{7}{10} + \frac{7}{10} = \frac{14}{10} = 1\frac{4}{10} = 1\frac{2}{5}$

Now add these fractions

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

Now check your answers

- $\frac{5}{8}+\frac{7}{8}=\frac{12}{8}=1\frac{4}{8}=1\frac{1}{2}$ $\frac{5}{6}+\frac{2}{6}=\frac{7}{6}=1\frac{1}{6}$ $\frac{5}{8}+\frac{5}{8}=\frac{10}{8}=1\frac{2}{8}=1\frac{1}{4}$
- $\frac{4}{5}+\frac{4}{5}=\frac{8}{5}=1\frac{3}{5}$ $\frac{6}{7}+\frac{5}{7}=\frac{11}{7}=1\frac{4}{7}$ $\frac{2}{3}+\frac{2}{3}=\frac{4}{3}=1\frac{1}{3}$
- $\frac{7}{9}+\frac{5}{9}=\frac{12}{9}=1\frac{3}{9}=1\frac{1}{3}$ $\frac{7}{8}+\frac{7}{8}=\frac{14}{8}=1\frac{6}{8}=1\frac{3}{4}$ $\frac{5}{6}+\frac{5}{6}=\frac{10}{6}=1\frac{4}{6}=1\frac{2}{3}$
- $\frac{7}{12}+\frac{7}{12}=\frac{14}{12}=1\frac{2}{12}=1\frac{1}{6}$ $\frac{5}{9}+\frac{3}{9}=\frac{8}{9}$ $\frac{3}{10}+\frac{9}{10}=\frac{12}{10}=1\frac{2}{10}=1\frac{1}{5}$

Addition of different fractions

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

- To add these fractions we must find a common denominator

- $\frac{1}{2} = \frac{2}{4}$ We can rewrite the sum as $\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$

Now try these

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

To save space not all answers are in lowest term but you can tidy them

- $\frac{3}{5}+\frac{1}{10}=\frac{7}{10}$ $\frac{3}{8}+\frac{1}{4}=\frac{5}{8}$ $\frac{1}{2}+\frac{1}{10}=\frac{6}{10}$
- $\frac{2}{3}+\frac{7}{9}=\frac{13}{9}=1\frac{4}{9}$ $\frac{3}{4}+\frac{1}{2}=\frac{5}{4}$ $\frac{5}{6}+\frac{2}{3}=\frac{9}{6}=1\frac{3}{6}$
- $\frac{3}{8}+\frac{3}{4}=\frac{9}{8}=1\frac{1}{8}$ $\frac{3}{5}+\frac{7}{10}=\frac{13}{10}=1\frac{3}{10}$ $\frac{7}{12}+\frac{1}{2}=\frac{13}{12}$
- $\frac{4}{5}+\frac{9}{10}=\frac{17}{10}$ $\frac{11}{12}+\frac{3}{4}=\frac{20}{12}=1\frac{8}{12}$ $\frac{3}{5}+\frac{1}{2}=\frac{11}{10}=1\frac{1}{10}$

Now try these

- Bob spent $\frac{2}{3}$ of his pocket money and gave another $\frac{1}{4}$ of it to his sister. What fraction of his money is that altogether?

- Anne spends $\frac{2}{5}$ of her spare time swimming and $\frac{3}{10}$ of it playing tennis. What fraction of her spare time is spent on these activities?

- Sarah spent $\frac{2}{3}$ of an hour on homework while Jason spent $\frac{3}{4}$ of an hour. How much time is that altogether

Now check your answers

- $\frac{2}{3} + \frac{1}{4} = \frac{8}{12} + \frac{3}{12} = \frac{11}{12}$ of his pocket money
- $\frac{2}{5} + \frac{3}{10} = \frac{4}{10} + \frac{3}{10} = \frac{7}{10}$ of her time
- $\frac{2}{3} + \frac{3}{4} = \frac{8}{12} + \frac{9}{12} = \frac{17}{12} = 1\frac{5}{12}$ hours

Addition of Mixed Numbers

- Treat them as 2 different sums
- Add your whole numbers
- Add your fractions – remembering to make sure that they are the same name
- Put your 2 answers together

- $2\frac{1}{2} + 2\frac{2}{3} = 4\ \left(\frac{1}{2} + \frac{2}{3}\right)$
- $= 4\ \left(\frac{3}{6} + \frac{4}{6}\right)$
- $= 4\ \left(\frac{7}{6} = 1\frac{1}{6}\right)$
- $= 5\frac{1}{6}$

Now try these sums

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

Answers – you might need to tidy some of the answers

- $1\frac{5}{6}+2\frac{5}{6}=3\frac{10}{6}=4\frac{4}{6}$ $1\frac{3}{4}+1\frac{1}{2}=2\frac{5}{4}=3\frac{1}{4}$
- $2\frac{3}{8}+\frac{3}{4}=2\frac{9}{8}=3\frac{1}{8}$ $1\frac{5}{8}+1\frac{1}{2}=2\frac{9}{8}=3\frac{1}{8}$
- $2\frac{7}{12}+1\frac{5}{12}=3\frac{12}{12}=4$ $1\frac{4}{5}+2\frac{1}{2}=3\frac{13}{10}=4\frac{3}{10}$
- $1\frac{7}{8}+2\frac{3}{4}=3\frac{13}{8}=4\frac{5}{8}$ $1\frac{5}{9}+2\frac{2}{3}=3\frac{11}{9}=4\frac{2}{9}$

More problems to solve

- Ronan had a bar of chocolate with 12 squares. He gave $\frac{1}{3}$ to Joseph and $\frac{1}{4}$ of it to David.
- What fraction did he give away?
- How many squares had he left?

- Lucy read $\frac{1}{6}$ of her book on Monday and $\frac{2}{3}$ on Tuesday.
- What fraction did she read?
- What fraction had she left to read?

Now check your answers

- $\frac{1}{3}+\frac{1}{4} = \frac{4}{12}+\frac{3}{12} = \frac{7}{12}$
- He gave away $\frac{7}{12}$ and had $\frac{5}{12}$ left.
- As there were 12 squares this means he has 5 squares left to eat.

- $\frac{1}{6}+\frac{2}{3} = \frac{1}{6}+\frac{4}{6} = \frac{5}{6}$
- She read $\frac{5}{6}$ of her book therefore she had $\frac{1}{6}$ left to read.

- Very Well Done