

Maths Presentation - Fractions

1. Introduce the words NUMERATOR and DENOMINATOR

$$\frac{3}{4}$$

- We say 4 is the denominator (family of fractions)
- We say 3 is the numerator (number of quarters)

2. Improper fractions

$$\frac{11}{8}$$

- We say the fraction is top heavy.
- So we divide the denominator in the numerator
- We get $1\frac{3}{8}$

3. Mixed numbers

$$2\frac{4}{7}$$

- We want to change the number to a improper fraction.
- We multiply the whole number by 7 and add 4
- We get $\frac{18}{7}$

4. Adding fractions:

$$\frac{1}{5} + \frac{3}{10} =$$

- We see that they have different denominators.
- Both fractions need to have the same denominator.
- We change $\frac{1}{5}$ to $\frac{2}{10}$
- Our sum now is $\frac{2}{10} + \frac{3}{10} = \frac{5}{10} = \frac{1}{2}$

5. Adding mixed numbers:

$$3\frac{5}{6} + 1\frac{2}{3}$$

- We change them to the same denominator and add the fractions first. Then we add the whole numbers.

$$3\frac{5}{6} + 1\frac{4}{6} = 4\frac{9}{6}$$

- We then change the fraction to a mixed number and add this to the 4.

$$\frac{9}{6} = 1\frac{3}{6}$$

- We then get $5\frac{3}{6}$ and simplify so final answer is:

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

6. Subtracting Fractions:

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

- Change the $\frac{1}{2}$ to $\frac{3}{6}$ and subtract

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

7. Subtracting a mixed number without renaming.

$$4\frac{1}{2} - 1\frac{1}{6}$$

- Change the $\frac{1}{2}$ to sixths

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

- *Subtract the fractions and then the whole numbers.*

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

8. Subtracting fractions with renaming:

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

- Change the $\frac{1}{2}$ to sixths

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

- We have to take one whole number from the 5 and change it to 6 sixths.
- We then add this to the $\frac{1}{6}$. We now have.

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