Learning Objective:	To add & subtract fractions	Name:	
		Date:	

Do NOW Activity:

1	What is the value of the number 3 in 8303.27	
2	Write 3/5 as a percentage	
3	Work out $\frac{2}{5} \times \frac{3}{8}$	
4	What is the mode? -> 2 8 2 4 7 5 4 1 5	
5	Share £64 in the ratio 10:4:2	

<u>PRIOR KNOWLEDGE CHECK:</u>
1. I can use the four operations in calculations.

<div align="center">THE MAIN EVENT</div>

WORKED EXAMPLE #1:

$$\frac{1}{3} + \frac{3}{4} = \frac{4}{12} + \frac{9}{12} = \frac{13}{12} = 1\frac{1}{12}$$
×4   ×3

$$\frac{8}{9} - \frac{5}{6} = \frac{48}{54} - \frac{45}{54} = \frac{3}{54} = \frac{1}{18}$$
×6   ×9

PRACTICE #1:

Question 1:   Work out the following additions and subtractions.
              Give your answers as simplified fractions.

(a) $\frac{2}{5} + \frac{1}{2}$ (b) $\frac{2}{7} + \frac{1}{2}$ (c) $\frac{1}{3} + \frac{1}{2}$ (d) $\frac{4}{5} - \frac{2}{3}$

(e) $\frac{8}{9} - \frac{1}{3}$ (f) $\frac{2}{3} + \frac{1}{6}$ (g) $\frac{3}{10} + \frac{2}{5}$ (h) $\frac{3}{8} + \frac{1}{4}$

(i) $\frac{7}{15} - \frac{1}{5}$ (j) $\frac{3}{4} - \frac{2}{5}$ (k) $\frac{3}{10} + \frac{3}{8}$ (l) $\frac{2}{5} + \frac{4}{7}$

WORKED EXAMPLE #2:

$$1\frac{1}{3} + 2\frac{3}{4} = \frac{49}{12} = 4\frac{1}{12}$$
$$\frac{4}{3} + \frac{11}{4} = \frac{16}{12} + \frac{33}{12} = \frac{49}{12}$$
×4   ×3

$$4\frac{2}{5} - 2\frac{1}{2} = \frac{19}{10} = 1\frac{9}{10}$$
$$\frac{22}{5} - \frac{5}{2} = \frac{44}{10} - \frac{25}{10} = \frac{19}{10}$$
×2   ×5

PRACTICE #2:

Question 1:   Work out the following additions and subtractions.
              Give your answers as simplified fractions.

(a) $1\frac{1}{2} + \frac{2}{3}$ (b) $\frac{7}{9} + 1\frac{1}{3}$ (c) $1\frac{3}{5} - \frac{3}{4}$ (d) $1\frac{5}{8} - 1\frac{1}{4}$

(e) $2\frac{1}{2} + 1\frac{1}{3}$ (f) $2\frac{2}{9} - 1\frac{1}{3}$ (g) $2\frac{2}{9} + \frac{5}{6}$ (h) $1\frac{5}{12} + 1\frac{5}{8}$

(i) $3\frac{1}{10} + 2\frac{2}{3}$ (j) $1\frac{8}{9} - \frac{4}{7}$ (k) $3\frac{2}{3} - 1\frac{11}{20}$ (l) $4\frac{8}{15} + 3\frac{1}{3}$

APPLICATION

Question 1:   In a car park, $\frac{2}{3}$ of the cars are red.

$\frac{1}{5}$ of the cars are blue.

What fraction of the cars are red or blue?

Question 2:   This week Harry spent $\frac{1}{2}$ of his pocket money on a ticket for a football match.

He also spent $\frac{1}{8}$ of his pocket money on a scarf at the match.

(a) What fraction of his pocket money has Harry spent?

(b) What fraction of his pocket money does Harry have left?

Question 3:   On an airplane, the passengers may have chicken, vegetable or tomato soup.
Half of the passengers choose chicken soup
A third of the passengers choose tomato soup.

(a) What fraction of the passengers choose vegetable soup?

Question 4:   Patrick has a bag of sugar that contains $\frac{5}{6}$ kg

He uses $\frac{3}{5}$ kg of sugar to make a cake.

How much sugar does Patrick have left?

Question 5:   Jasmine has a bottle that contains $\frac{7}{10}$ litre of orange juice.

She pours out some orange juice and now has $\frac{1}{4}$ litre left.

How much orange juice did Jasmine pour out?

Question 6:   In school, pupils study one language.
They choose either French, Spanish or Italian.

$\frac{3}{20}$ of the pupils study Italian and $\frac{5}{8}$ of the pupils study French

What fraction of the pupils study Spanish?