ADD AND SUBTRACT FRACTIONS
INVESTIGATION
FRACTION MAGIC SQUARES

SET 1

$1\frac{1}{3}$	3	$\frac{2}{3}$
1	$1\frac{2}{3}$	$2\frac{1}{3}$
$2\frac{2}{3}$	$\frac{1}{3}$	2

$2\frac{2}{3}$	6	$1\frac{1}{3}$
2	$3\frac{1}{3}$	$4\frac{2}{3}$
$5\frac{1}{3}$	$\frac{2}{3}$	4

SET 2

$\frac{7}{24}$	$\frac{1}{2}$	$\frac{5}{24}$
$\frac{1}{4}$	$\frac{1}{3}$	$\frac{5}{12}$
$\frac{11}{24}$	$\frac{1}{6}$	$\frac{3}{8}$

TASK 1

- Multiply each number from the first set of tiles by 3.
- Use the results to make a magic square.
- What is the magic number?
- How is the magic number related to the magic number of the first problem on the card?

TASK 2

- Add $\frac{1}{3}$ to each number in the first set of tiles.
- Make a magic square.
- What is the magic number?
- How is it related to the magic number of the first problem on the card?

TASK 3

- Look again at the second set of numbers.
- Multiply them all by 24.
- How are the answers related to the numbers used in Question 1?
- If a magic square was made from them, what would its total be?
- How is the answer related to the magic total of the square made from these fractions?

TASK 4

How many of the original second set of numbers (i.e. $\frac{7}{24}$, $\frac{1}{2}$, $\frac{5}{24}$ etc.) can be transformed into the original first set of numbers ($1\frac{1}{3}$, 3, $\frac{2}{3}$ etc.)?