#### Adding fractions

Please complete the following questions. If the answer is an improper fraction, convert it to a whole or mixed number.

1) 
$$\frac{5}{8} + \frac{1}{8} = \frac{}{8}$$

$$2) \quad \frac{4}{10} + \frac{4}{10} = \frac{10}{10}$$

3) 
$$\frac{3}{7} + \frac{2}{7} = \frac{1}{7}$$

4) 
$$\frac{4}{3} + \frac{1}{3} = \frac{1}{3}$$

Fill in the missing numbers in the calculations below.

a) 
$$\frac{5}{8} + \frac{11}{8} = \frac{11}{8}$$

b) 
$$\frac{7}{9} + \frac{15}{9} = \frac{15}{9} = 1\frac{6}{9}$$

Please complete the following calculations which have different denominators. Remember to show your working out. The first one has been done for you.

$$\frac{1}{8} + \frac{1}{2} =$$

$$\frac{2}{7} + \frac{5}{14} =$$

$$\frac{1}{4} + \frac{5}{8} =$$

$$\frac{3}{8} + \frac{1}{16} =$$

$$\frac{1}{2} + \frac{3}{8} =$$

$$\frac{5}{16} + \frac{5}{8} =$$

$$\frac{5}{6} + \frac{1}{12} =$$

$$\frac{2}{9} + \frac{5}{18} =$$

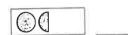
# Improper Fractions and Mixed Numbers

 $\langle PS \rangle$  Problem-solving questions

#### Challenge I

 $1\frac{3}{4}$  is a mixed number,

What mixed numbers do these represent?







- Put a tick (1) beside the fractions greater than 1 and a cross (X) 2 beside the fractions less than 1.

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

Marks............ /8

## Challenge 2

- What improper fractions do these represent?



- Convert these improper fractions to mixed numbers.

  - a)  $\frac{11}{6}$  b)  $\frac{14}{3}$  c)  $\frac{15}{4}$

Marks....../6

## Challenge 3

Give your answers as mixed numbers.

a) 
$$\frac{9}{5} + \frac{2}{5} =$$

**b)** 
$$\frac{7}{8} + \frac{7}{8} =$$

a) 
$$\frac{9}{5} + \frac{2}{5} =$$
 \_\_\_\_\_ b)  $\frac{7}{8} + \frac{7}{8} =$  \_\_\_\_\_ c)  $\frac{4}{5} + \frac{6}{5} + \frac{3}{5} =$  \_\_\_\_\_

- 2 Use >, < or = to make these statements correct.

  - a)  $\frac{15}{6}$   $\frac{5}{2}$  b)  $1\frac{4}{5}$   $\frac{11}{5}$

Marks.........../5

Total marks ...../19

How am I doing?







#### ANSWERS

#### Adding fractions

Please complete the following questions. If the answer is an improper fraction, convert it to a whole or mixed number.

1) 
$$\frac{5}{8} + \frac{1}{8} = \frac{6}{8}$$
 2)  $\frac{4}{10} + \frac{4}{10} = \frac{8}{10}$ 

$$2) \quad \frac{4}{10} + \frac{4}{10} = \frac{8}{10}$$

3) 
$$\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$$

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

Fill in the missing numbers in the calculations below.

a) 
$$\frac{5}{8} + \frac{6}{8} = \frac{11}{8}$$

b) 
$$\frac{7}{9} + \frac{8}{9} = \frac{15}{9} = 1\frac{6}{9}$$

Please complete the following calculations which have different denominators. Remember to show your working out. The first one has been done for you.

$$\frac{1}{8} + \frac{1}{2} = \boxed{\frac{5}{8}}$$

$$\frac{2}{7} + \frac{5}{14} = \boxed{\frac{9}{14}}$$

$$\frac{1}{4} + \frac{5}{8} = \boxed{\frac{7}{8}}$$

$$\frac{3}{8} + \frac{1}{16} = \boxed{\frac{7}{16}}$$

$$\frac{1}{2} + \frac{3}{8} = \boxed{\frac{7}{8}}$$

$$\frac{5}{16} + \frac{5}{8} = \frac{15}{16}$$

$$\frac{5}{6} + \frac{1}{12} = \boxed{\frac{11}{12}}$$

$$\frac{2}{9} + \frac{5}{18} = \boxed{\frac{1}{2}}$$

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1 a) 
$$1\frac{1}{2}$$

**b)** 
$$2\frac{1}{4}$$

c) 
$$2\frac{3}{4}$$

2 
$$\frac{4}{5} \times \frac{7}{6} \checkmark 1\frac{1}{2} \checkmark \frac{2}{3} \times \frac{5}{4} \checkmark$$

c) 
$$\frac{10}{3}$$

Challenge 2

1 a) 
$$\frac{15}{4}$$

2 a)  $1\frac{5}{6}$ 

b) 
$$\frac{15}{6}$$
 b)  $4\frac{2}{3}$ 

c) 
$$\frac{10}{3}$$
  
c)  $3\frac{3}{4}$ 

Challenge 3 1 a) 
$$2\frac{1}{5}$$

**b)** 
$$1\frac{6}{8}$$
 or  $1\frac{3}{4}$ 

c) 
$$2\frac{3}{5}$$

2 a) 
$$\frac{15}{6} = \frac{5}{2}$$
  
b)  $1\frac{4}{5} < \frac{11}{5}$ 

**b)** 
$$1\frac{4}{5} < \frac{11}{5}$$