

**1** Find the amounts

- a)  $\frac{3}{4}$  of 20      b)  $\frac{2}{3}$  of 12      c)  $\frac{3}{5}$  of 60      d)  $\frac{5}{8}$  of 48      e)  $\frac{4}{7}$  of 210

**2** Express these fractions in their simplest terms

- a)  $\frac{12}{24}$       b)  $\frac{15}{20}$       c)  $\frac{18}{30}$       d)  $\frac{12}{15}$       e)  $\frac{20}{35}$       f)  $\frac{48}{72}$       g)  $\frac{45}{81}$

**3** Find the equivalent fractions

- a)  $\frac{1}{2} = \frac{\quad}{8} = \frac{\quad}{20} = \frac{\quad}{14} = \frac{13}{\quad}$       b)  $\frac{2}{3} = \frac{\quad}{9} = \frac{\quad}{15} = \frac{12}{\quad} = \frac{32}{\quad}$

**4** Which of these fractions are equivalent?

- $\frac{1}{2}$      $\frac{6}{8}$      $\frac{4}{10}$      $\frac{20}{24}$      $\frac{5}{15}$      $\frac{1}{3}$      $\frac{9}{18}$      $\frac{2}{5}$      $\frac{3}{4}$      $\frac{5}{6}$

**5** In each pair of fractions, make them so that they have the same common denominator, now work out which fraction in each pair is largest

- a)  $\frac{1}{2}$      $\frac{5}{8}$       b)  $\frac{7}{10}$      $\frac{3}{5}$       c)  $\frac{3}{5}$      $\frac{3}{4}$       d)  $\frac{5}{8}$      $\frac{4}{7}$

**6** Convert these fractions to mixed numbers

- a)  $\frac{4}{3}$       b)  $\frac{7}{5}$       c)  $\frac{7}{4}$       d)  $\frac{11}{9}$       e)  $\frac{23}{10}$       f)  $\frac{19}{5}$       g)  $\frac{32}{15}$

**7** Now do the reverse and change these fractions to improper fractions

- a)  $1 \frac{1}{2}$       b)  $1 \frac{3}{4}$       c)  $1 \frac{4}{7}$       d)  $2 \frac{1}{5}$       e)  $3 \frac{1}{3}$       f)  $4 \frac{3}{10}$       g)  $2 \frac{5}{13}$

**8** Some simple addition with fractions

remember to leave answers in simplest form

- a)  $\frac{2}{5} + \frac{1}{5}$       b)  $\frac{3}{9} + \frac{4}{9}$       c)  $\frac{3}{6} + \frac{7}{6}$       d)  $\frac{7}{10} + \frac{8}{10}$       e)  $\frac{3}{2} + \frac{5}{2}$

**9** Now the same process but with subtraction

- a)  $\frac{5}{7} - \frac{2}{7}$       b)  $\frac{8}{9} - \frac{4}{9}$       c)  $\frac{11}{12} - \frac{8}{12}$       d)  $\frac{17}{20} - \frac{15}{20}$       e)  $\frac{25}{28} - \frac{4}{28}$

**10** Some more addition & subtraction but this time make sure you have the same common denominator

make sure you always put your answer in it's simplest form

- a)  $\frac{1}{2} + \frac{1}{8}$       b)  $\frac{1}{5} + \frac{4}{15}$       c)  $\frac{7}{9} - \frac{2}{3}$       d)  $\frac{11}{12} - \frac{3}{4}$       e)  $\frac{1}{3} + \frac{1}{5}$   
 f)  $\frac{2}{5} + \frac{3}{4}$       g)  $\frac{5}{8} + \frac{2}{3}$       h)  $\frac{5}{7} - \frac{1}{2}$       i)  $\frac{2}{3} - \frac{1}{5}$       j)  $\frac{9}{11} - \frac{2}{9}$

**11** With mixed numbers remember to convert them to top heavy fractions first

- a)  $1 \frac{1}{3} + 1 \frac{1}{4}$       b)  $1 \frac{5}{6} + 2 \frac{1}{2}$       c)  $2 \frac{2}{5} - 1 \frac{1}{4}$       d)  $4 \frac{1}{3} - 1 \frac{7}{10}$

**12** Kim has 24 ballons  $\frac{1}{3}$  are red,  $\frac{1}{4}$  are blue and the rest are yellow. How many are yellow?

**13** Stacey has a packet of 30 biscuits, she eats  $\frac{2}{5}$  and gives  $\frac{1}{6}$  to her friend.

how many biscuits does she have left?

**14** In my pencil case I have 8 red pens, if there are 36 pens altogether, what fraction are red?

**15** In April this year it rained a total of 25 days out of the 30 days, what fraction of days did it not rain?

**16** On my apple tree,  $\frac{2}{7}$  of all the apples had maggots in. I counted 154 apples, how many were maggot free?

**17** In a box of biscuits,  $\frac{3}{5}$  of them are chocolate,  $\frac{1}{4}$  have a jam filling and the rest are plain what fraction are plain?

**18** A class of 24 students take a maths test

$\frac{2}{3}$  of the students pass the test

$\frac{1}{4}$  of the students who fail the test get below 10%

- a) How many students get less than 10%?  
 b) What fraction of the class get over 10%?