

A Change to decimal fractions. When necessary work to the nearest second place.

a $\frac{4}{5}$ 0.8 b $\frac{1}{6}$ 0.17 c $\frac{2}{3}$ 0.67 d $\frac{7}{8}$ 0.88 e $\frac{5}{7}$ 0.71

B $\frac{1}{3} + \frac{1}{2} =$ $\frac{5}{6}$ $\frac{1}{2} - \frac{1}{6} =$ $\frac{1}{3}$ $\frac{2}{3} \times 12 =$ 8 Express as mixed numbers. $\frac{137}{10}$ $13\frac{7}{10}$
 $\frac{1}{4} + \frac{1}{6} =$ $\frac{5}{12}$ $\frac{3}{4} - \frac{2}{3} =$ $\frac{1}{12}$ $10 \times 1\frac{2}{5} =$ 14 $93 \div 8$ $11\frac{5}{8}$
 $\frac{5}{8} + \frac{3}{4} =$ $1\frac{8}{8}$ $3 - 1\frac{7}{12} =$ $1\frac{5}{12}$ $1\frac{7}{10} \times 20 =$ 34 $124 \div 9$ $13\frac{7}{9}$
 $\frac{3}{10} + 1\frac{1}{2} =$ $1\frac{4}{5}$ $2\frac{1}{4} - 1\frac{7}{8} =$ $\frac{3}{8}$ $40 \times \frac{3}{8} =$ 15

C Write each fraction in its simplest form as a percentage.

a $\frac{12}{20}$ 60% b $\frac{28}{40}$ 70% c $\frac{45}{100}$ 45% d $\frac{24}{32}$ 75% e $\frac{30}{50}$ 60%

Write each of these scales as a fraction.

a 1mm to 20cm $\frac{1}{200}$ b 1cm to 5m $\frac{1}{500}$ c 1cm to 1km $\frac{1}{100000}$

D Fill in the table. The first example is done for you.

	fraction (simplest form)	percentage (%)	ratio
40p of 50p	$\frac{4}{5}$	80%	4:5
300g of 0.5kg	$\frac{3}{5}$	60%	3:5
700ml of 1l	$\frac{7}{10}$	70%	7:10
5p of £1	$\frac{1}{20}$	5%	1:20

	fraction (simplest form)	percentage (%)	ratio
50cm of 2m	$\frac{1}{4}$	25%	1:4
750g of 1.5kg	$\frac{1}{2}$	50%	1:2
250 of 400	$\frac{5}{8}$	62.5%	5:8
35p of £5	$\frac{7}{100}$	7%	7:100

E 8 cost £10. What fraction of £10 do

3 cost $\frac{3}{8}$ 7 cost? $\frac{7}{8}$

5 cost £7. What fraction of £7 do

2 cost $\frac{2}{5}$ 8 cost? $\frac{8}{5}$

10 cost £3.50. What fraction of £3.50 do

9 cost $\frac{9}{10}$ 15 cost? $\frac{3}{2}$

Share each quantity in the given ratio.

£30, ratio 3:2 £18 £12

1.75kg, ratio 4:1 1.4kg 350g

2m, ratio 5:3 125cm 75cm

F Find the value of

$\frac{3}{10}$ of £1.60 48p

0.75 of 600 450

60% of $\frac{1}{2}$ kg 300g

0.9 of 2l 1.8l

50% of 3m 70cm 1m 85cm

$\frac{3}{100}$ of 1kg 30g

0.95 of 10000 9500

17% of £3.00 51p

$\frac{5}{9}$ of 1.8kg. 1kg

Find the whole when

0.25 is £3.50 £14

$\frac{3}{4}$ is 57cm 76cm

10% is 850g 8.5kg

0.6 is 42p 70p

$\frac{5}{8}$ is 2.5kg 4kg

30% is 1.8l 6l

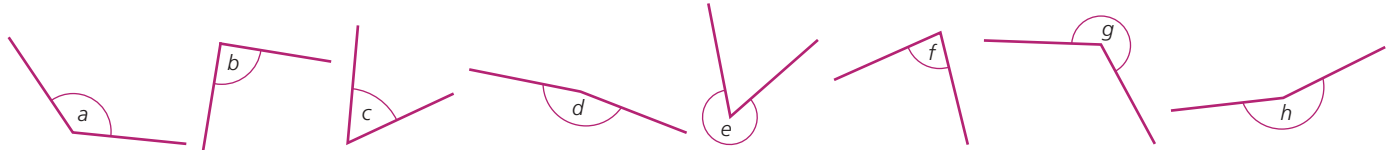
0.375 is 300 800

$\frac{7}{10}$ is 91p £1.30

5% is 200g. 4kg

G Estimate which of the angles marked a – h is:
 an obtuse angle of 130°

a right angle b an acute angle of 80° f
 a reflex angle of 300° e a reflex angle of 240° g



H Find the angle marked x and/or y in each shape.

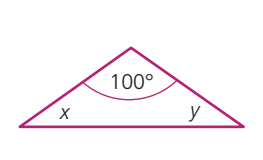
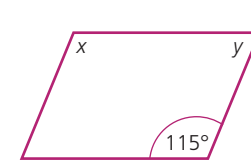
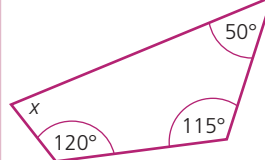
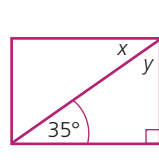
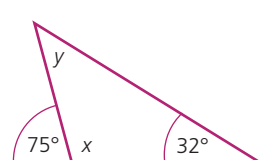
$\angle x$ 105° $\angle y$ 43°

$\angle x$ 35° $\angle y$ 55°

$\angle x$ 75°

$\angle x$ 115° $\angle y$ 65°

$\angle x$ 40° $\angle y$ 40°



Fill in the table for regular polygons.

name of regular polygon	number of sides	angle at centre
hexagon	6	60°
octagon	8	45°
pentagon	5	72°

What fraction of the circumference is the arc xy in circle A, circle B?

