

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.
 $\frac{1}{4} + \frac{1}{6} = \frac{5}{12}$ $\frac{3}{4} - \frac{2}{3} = \frac{1}{12}$ $10 \times 1\frac{2}{5} = 14$ $\frac{137}{10} = 13\frac{7}{10}$
 $\frac{5}{8} + \frac{3}{4} = 1\frac{11}{8}$ $3 - 1\frac{7}{12} = 1\frac{5}{12}$ $1\frac{7}{10} \times 20 = 34$ $93 \div 8 = 11\frac{5}{8}$
 $\frac{3}{10} + 1\frac{1}{2} = 1\frac{18}{10}$ $2\frac{1}{4} - 1\frac{7}{8} = \frac{1}{8}$ $40 \times \frac{3}{8} = 15$ $124 \div 9 = 13\frac{7}{9}$

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.

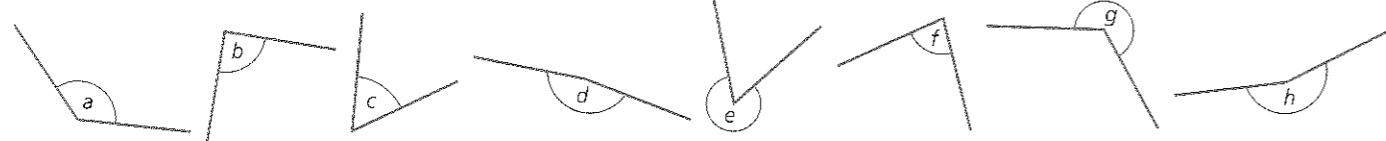
	fraction (simplest form)	percentage (%)	ratio
40p of 50p	$\frac{4}{5}$	80%	4:5
300g of 0.5kg	$\frac{3}{5}$	60%	3:5
700ml of 1l	$\frac{7}{10}$	70%	7:10
5p of £1	$\frac{1}{20}$	5%	1:20

	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

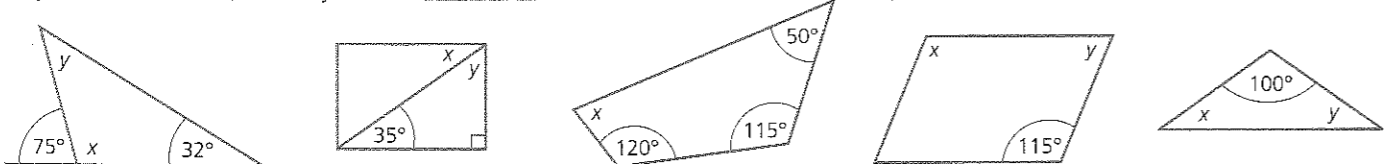
E 8 cost £10. What fraction of £10 do
 3 cost $\frac{3}{10}$ 7 cost? $\frac{7}{10}$
 5 cost £7. What fraction of £7 do
 2 cost $\frac{2}{5}$ 8 cost? $\frac{8}{5}$
 10 cost £3.50. What fraction of £3.50 do
 9 cost $\frac{9}{35}$ 15 cost? $\frac{15}{35}$
 Share each quantity in the given ratio.
 £30, ratio 3:2 £18 £12
 1.75kg, ratio 4:1 1.4kg 350g
 2m, ratio 5:3 125cm 75cm

F Find the value of Find the whole when
 $\frac{3}{10}$ of £1.60 48p 0.25 is £3.50 £14
 0.75 of 600 450 $\frac{3}{4}$ is 57cm 76cm
 60% of $\frac{1}{2}$ kg 300g 10% is 850g 8.5kg
 0.9 of 2l 1.8l 0.6 is 42p 70p
 50% of 3m 70cm 1m 85cm $\frac{5}{8}$ is 2.5kg 4kg
 $\frac{3}{100}$ of 1kg 30g 30% is 1.8l 6l
 0.95 of 10000 9500 0.375 is 300 800
 17% of £3.00 51p $\frac{7}{10}$ is 91p £1.30
 $\frac{5}{9}$ of 1.8kg. 1kg 5% is 200g. 4kg

G Estimate which of the angles marked a - h is:
 a right angle b an acute angle of 80° f
 an obtuse angle of 130° a a reflex angle of 300° e a reflex angle of 240° g



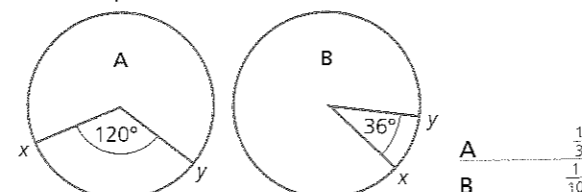
H Find the angle marked x and/or y in each shape.
 $\angle x = 105^\circ$ $\angle x = 35^\circ$ $\angle x = 75^\circ$ $\angle x = 115^\circ$ $\angle x = 40^\circ$
 $\angle y = 43^\circ$ $\angle y = 55^\circ$ $\angle y = 65^\circ$ $\angle y = 40^\circ$



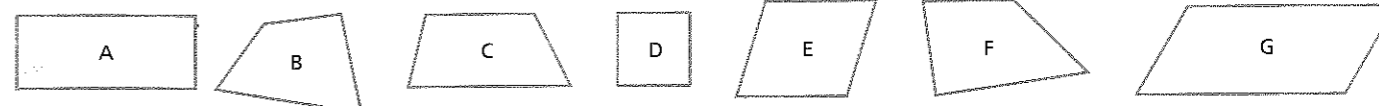
Fill in the table for regular polygons.

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?



A Each of the shapes A to G is a quadrilateral.



Give the letter of the shape which is
 a a rhombus E
 b a rectangle A
 c a trapezium C d a square D
 e a parallelogram G

Write the name of the shape (or shapes) which has:
 four equal sides square, rhombus
 four right angles square, rectangle
 opposite sides equal and parallel square, rectangle, rhombus, parallelogram
 one pair only of parallel sides trapezium
 diagonals which are equal square, rectangle
 diagonals which bisect each other at right angles square, rhombus

Write the letter of the shape or shapes which have:
 a no axis of symmetry B, C, F, G
 b two axes of symmetry A, E
 c four axes of symmetry D

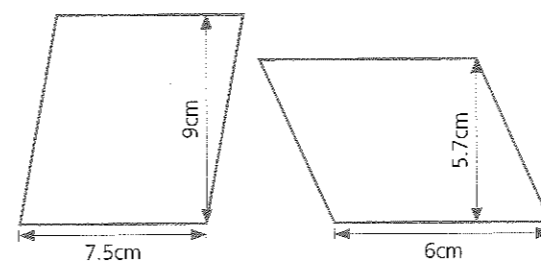
B Fill in the missing measurements. In each case give the unit of measurement.

Rectangles $A = lb$ $b = \frac{A}{l}$ $l = \frac{A}{b}$

length	breadth	perimeter	area
7cm	5.5cm	25cm	38.5cm ²
16cm	6cm	44cm	96cm ²
10cm	8cm	36cm	80cm ²
9cm	3.5cm	25cm	31.5cm ²
25m	20m	90m	500m ²

Triangles $A = \frac{bh}{2}$ $b = 2\frac{A}{h}$ $h = 2\frac{A}{b}$

base	height	area
35mm	12mm	210mm ²
27cm	18cm	243cm ²
9cm	6cm	27cm ²
11cm	3cm	16.5cm ²
1.6m	9m	7.2m ²



Rhombuses and parallelograms $A = bh$ $b = \frac{A}{h}$ $h = \frac{A}{b}$

base	height	area
7.5cm	6cm	16cm
1.5m	40cm	15mm
9.0cm	5.7cm	7cm
67.5cm ²	34.2cm ²	112cm ²
4.5m ²	60cm ²	

Circles $C = \pi d$ or $2\pi r$; $\pi = 3.14$

radius (r)	1cm	3cm	10cm
diameter (d)	2cm	6cm	20cm
circumference (c)	6.28cm	18.84cm	62.8cm

Cubes and cuboids $V = lbh$ $l = \frac{V}{bh}$ $b = \frac{V}{lh}$

length	breadth	height	volume
8cm	5cm	9cm	360cm ³
20cm	20cm	20cm	8000cm ³
8m	3.5m	2m	56m ³
6.4cm	10cm	5cm	320cm ³
10cm	9.3cm	2cm	186cm ³

Find the volume of each of these prisms.

