Using a Calculator

$$\frac{\sqrt{2.5^2 + 3.75}}{3.9 - 1.7}$$

Solve and write down all the numbers on your calculator.

Then round to 1dp.

Area and Circumference

A circle has a circumference of 100cm

What is its radius?

What is the area of the circle?

Trigonometry



Find the length of the hypotenuse

Reverse Percentages

In a sale, normal prices are reduced by 12%.

The sale price of a TV is £242.

Work out the normal price of the TV..

Quadratic Graph

Complete the table for

$y = x^2 - 3x - 1$

x	-2	-1	0	1	2
y					

Compound Interest

A company bought a van that had a value of £12 000
Each year the value of the van depreciates by 25%.
Work out the value of the van at the end of three years.

Worded Question

40 people go on a trip.
They go in minibuses that can each seat up to 15 people.
It costs £30 for each minibus and £150 for the group to have use of the leisure centre.
How much will the trip cost per person?

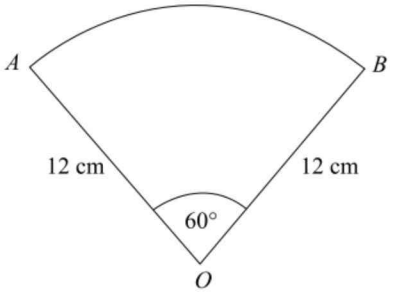
Expressions

A regular pentagon has a perimeter given by the expression

$40x + 30$

Write an expression for the length of each side.

Area of a Sector



Calculate the area of the sector

Averages from a Table

Days in a month	Frequency
28	1
29	0
30	4
31	7
32	0

Work out the mean number of days in a month

Ratio

Peter won £75 as a prize.

He gave 4/5 of the prize money as a present to Roger and Bethan.
Roger and Bethan shared the present in the ratio 2:3

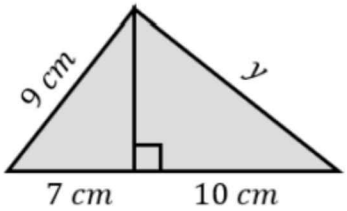
Work out how much they each got.

Ordering Decimals

Put in ascending order:

0.772, 0.519, 0.8, 0.72, 0.77

Pythagoras' Theorem



Find y

Percentages

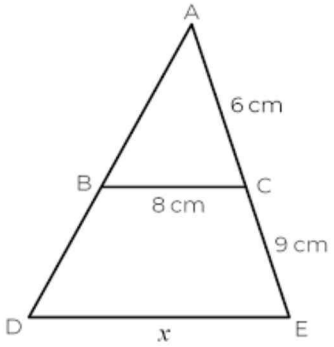
A doctor has 12 000 patients.
4560 of these patients are male.

What percentage of these patients are female?

Relative Frequency

The probability that a biased dice will land on a five is 0.3
Megan is going to roll the dice 400 times.
Work out an estimate for the number of times the dice will land on a five.

Similar Shapes



Find the length of x

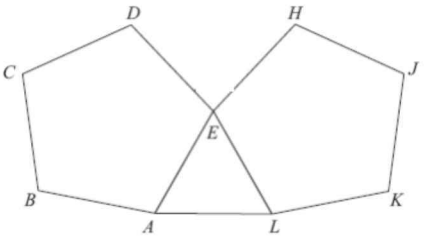
Reverse Mean

John has eight horses. They have a mean height of 160cm.

John buys a ninth horse. The height of this horse is 142cm.

Find the mean height of all nine horses.

Connected Polygons



The diagram shows 2 regular pentagons and an equilateral triangle. Work out the size of angle DEH.

Midpoint of a Line

Find the midpoint of the line joining these points

(0,7) and (6,3)

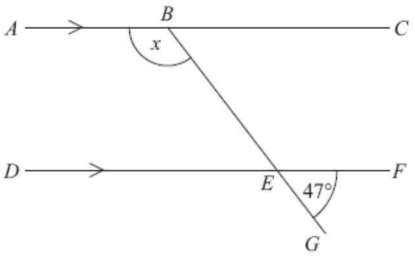
Currency

The exchange rate in London is £1 = €1.14

Al wants to change some pounds into euros.

How many euros would he get for £300?

Angles in Parallel Lines



Find the value of x.

Best Buy

2 for £1	**Pens**	4 for £1.80

Which offer is better value?

Speed, Distance, Time

Dave drives 15 miles to work.
The journey takes 20 minutes.

What is Dave's average speed in miles per hour?

Proportion

It takes 5 people 12 days to pitch a number of tents.

Show that it would take 6 people 10 days to pitch the same number of tents.