Using a Calculator

Work out $\dfrac{\sqrt{2.56 + 3.50}}{8.765 - 6.78}$

Solve and write down all the numbers on your calculator.

Then round to 1dp.

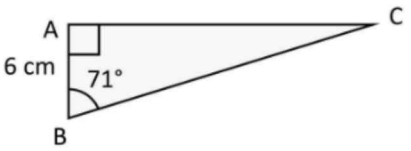
Area and Circumference

A circle has an area of $50cm^2$

What is its radius?

What is the circumference of the circle?

Trigonometry



Find the length of BC to 1dp

Reverse Percentages

Jacob answered 80% of the questions in a test correctly.

He answered 32 of the questions correctly.

Work out the total number of questions in the test.

Quadratic Graph

Complete the table for

$y = x^2 + x - 2$

x	-2	-1	0	1	2
y					

Compound Interest

John invests £800 at 3.5% compound interest for 5 years.

How much is his investment worth after 5 years?

Worded Question

A set of six numbers have a median of 5.
All of the numbers are even.
The range of the numbers is 6.
The mode of the numbers is 4.

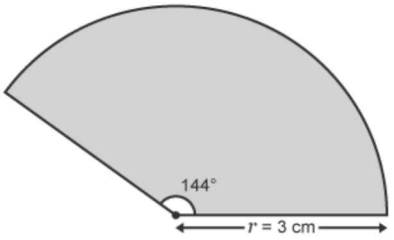
Write down a possible set of six numbers.

Expressions

Will is ***w*** years old.
Ben is 3 years older.
Write an expression, in terms of ***w***, for Ben's age.

Jan is twice as old as Ben.
Write an expression, in terms of ***w***, for Jan's age.

Area of a Sector



Calculate the area of the sector

Averages from a Table

Bob asked 40 people how many minutes they took to get to work

Time taken (m minutes)	Frequency
$0 < m \leq 10$	3
$10 < m \leq 20$	8
$20 < m \leq 30$	11
$30 < m \leq 40$	7
$40 < m \leq 50$	9

Work out an estimate for the mean time taken.

Ratio

Ann & Bob shared £240 in the ratio 3 : 5

Ann gave half of her share to Colin.
Bob gave a tenth of his share to Colin.

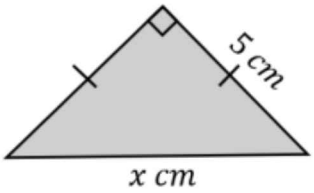
What fraction of the £240 did Colin receive?

Ordering Decimals

Put in ascending order:

0.517, 0.6, 0.66, 0.622, 0.069

Pythagoras' Theorem



Find x

Percentages

A carton of orange juice contains 540ml.
A special offer carton contains an extra 35%.

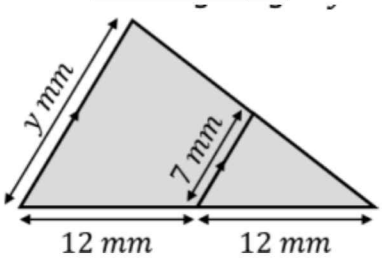
How many milliliters of orange juice are in the special offer carton?

Relative Frequency

Jack sows 300 wildflower seeds. The probability of a seed flowering is 0.7

Work out an estimate for the number of these seeds that will flower.

Similar Shapes



Calculate the length of y

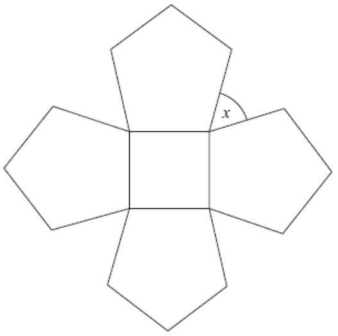
Reverse Mean

The mean of eight numbers is 46

The mean of three of the numbers is 32

What is the mean of the other five numbers?

Connected Polygons



The diagram shows a square and 4 regular pentagons. Work out the size of the angle marked x.

Midpoint of a Line

Find the midpoint of the line joining these points

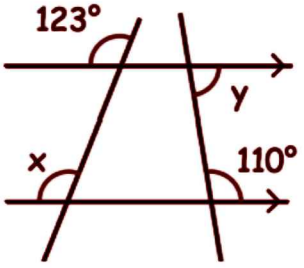
(-10,-6) and (2,4)

Currency

Sunglasses in the USA cost $35.50.
In England, an identical pair of sunglasses cost £26.99
.
The exchange rate is £1 = $1.42

In which country were the sunglasses cheaper, and by how much?

Angles in Parallel Lines



Find the value of x and y.

Best Buy

4 cans for £2.40	**Beans**	6 cans for £3.90

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

The weight of a piece of wire is directly proportional to its length.
A piece of wire is 25 cm long and has a weight of 6 grams.
Another piece of the same wire is 30 cm long.

Calculate the weight of the 30 cm piece of wire.