Index Laws

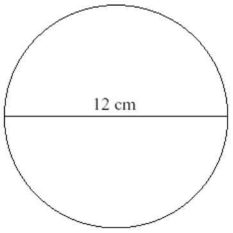
$x^{-2} \times 3x^5 =$

$x^6 \div x^{-2} =$

$(2x^2)^3 =$

$x^5 \times x^4 \div x^{-2} =$

Area and Circumference

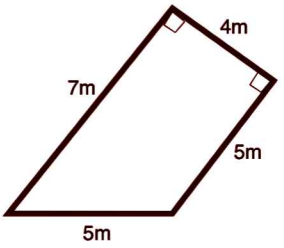


Area =

Circumference =

Give your answers in terms of π

Area of a Trapezium



Area =

Reverse Percentages

John receives a 10% pay rise.
He now earns £660 per week.
What did he earn before his pay rise?

Solving Linear Equations

Solve:

$3(2x + 2) = 2(x - 7)$

Write as a percentage

0.9 =

0.38 =

0.092 =

2/5 =

7/20=

Quadratics

Expand: (x + 4) (x - 6)

Factorise and solve:

$x^2 - 3x - 18 = 0$

Worded Question

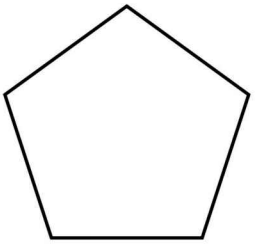
Tracy buys:

2 coffees at £1.10 each
3 teas at 95p each
5 sandwiches at £2.15 each

Tracy shares the total cost equally between 5 people.

How much does each person pay?

Exterior Angles



Name the shape =

Exterior angle =

Interior Angle =

Product of Prime Factors

Write 72 as a product of its prime factors.

Ratio

Will and Kate share some money in a 5:3 ratio.

Will gets £30 more than Kate.

How much does Kate get?

Changing the Subject

Make c the subject of the equation:

$f = 3c - 4$

Error Intervals

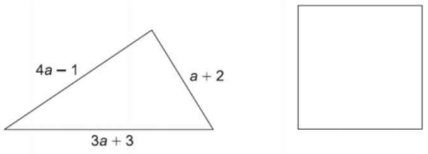
A number y is rounded to 2 decimal places.

The result is 2.75
Write down the error interval for y

…… ≤ y < ……

Forming Equations

The perimeter of the triangle is the same as the perimeter of the square.



Find an expression for the length of one side of the square in terms of a.
Give your answer in its simplest form.

Sequences

23, 19, 15, 11, 7,...

What is the nth term?

Is 342 in the sequence?

Cos Values

Cos(0°) =

Cos(30°) =

Cos(45°) =

Cos(60°) =

Cos(90°) =

Proportion

Ingredients for 10 Flapjacks
80 g rolled oats
60 g butter
30 ml golden syrup
36 g light brown sugar

What are the ingredients for 25 flapjacks?

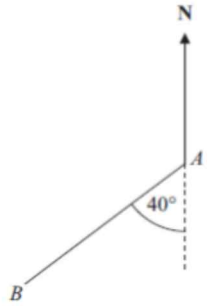
Simultaneous Equations

Solve the simultaneous equations

3x + 5y = 19

4x - 2y = -18

Bearings



What is the bearing of B from A?
What is the bearing of A from B?

Fractions

3/5 + 1/8 =

2/11 x 5/7 =

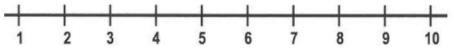
2/9 ÷ 4/7 =

Inequalities

Show the inequality:

2 < x < 8

On the number line



Standard Form

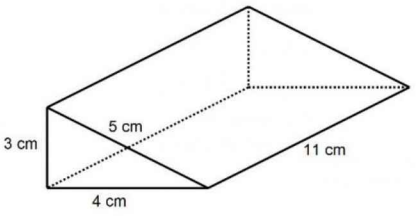
Write 0.0067 in standard form.

Write 4×10^{-5} as an ordinary number.

Probability

The probability that a biased dice will land on a four is 0.2.
Tom is going to roll the dice 200 times.
Work out an estimate for the number of times the dice will land on a four.

Volume and Surface Area



Volume =

Surface Area =