11th August
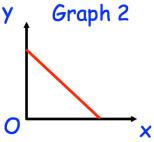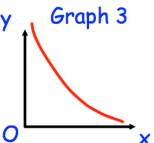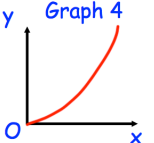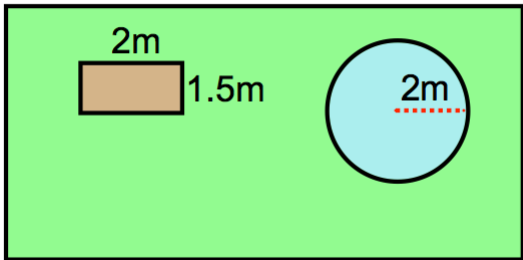
Corbettmaths

Make x the subject of

$$\sqrt[3]{\dfrac{x}{k}} = w$$

Graph 1

Graph 2

Graph 3

Graph 4

One of the graphs shows that y is inversely proportional to x.

Which graph?

10m

2m

1.5m

2m

6m

Belle wants to re-seed the grass in her garden.
The garden is 10 metres long and 6 metres wide.
There is a vegetable patch that is 2 metres long and 1.5 metres long.

There is a circular pond that has radius 2 metres.
The remainder of the garden is grass.
Each bag of grass seed costs £4.60 and covers 10m².
Work out the total cost to re-seed the garden.

The sum of Rosemary's age and Hannah's age is 102 years.
The difference between their ages is 52 years.
Hannah is younger than Rosemary.
Find the age of each woman.
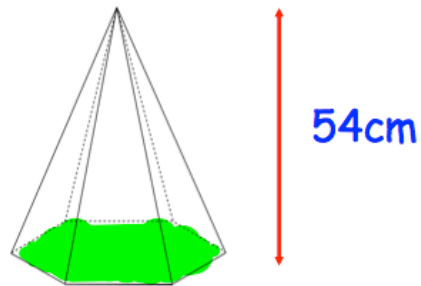
12th August

Corbettmaths

An internet company collected data about the number of internet devices in each of 50 households.
The table shows the results.

Number of devices	Number of households
0	1
1	1
2	2
3	4
4	9
5	13
6	10
7	7
8	3

Work out the total number of internet devices in these 50 households

Calculate the mean number of internet devices per household.

A hexagon-based pyramid has a height of 54cm.
The volume of the pyramid is 1080cm³.
Calculate the area of the base of the pyramid.

54cm

7.8 has been truncated to one decimal place.

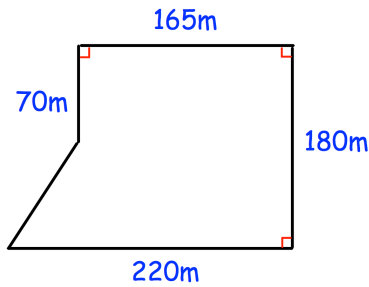Write down an inequality to show the range of possible actual values.

A line has gradient 3 and passes through the point (1, 8)

Find the equation of the line.

13th August

Write 708% as a simplified fraction

Corbettmaths

165m
70m
180m
220m

Farmer Richards owns this field.
The crop he plants earns him £7 for each square metre
How much money does he earn in total?

Solve

$x^2 + 5x - 14 = 0$

$(a + c)^2 = t$

make c the subject

Charlene and Danielle share some money in ratio 2 : 5
Danielle gets £216 more than Charlie.

How much does each girl receive?

14th August

Corbettm𝛼ths

$$2x + 1$$

2.5 [ ] $3y - 2$

$$19$$

Find x

Find y

Perimeter

Solve

$$x^2 + 6x + 9 = 0$$

Expand and simplify

$$(5y - 1)(y - 2)$$

The speed limit on a road is 40mph. A scooter drives 9 miles in 13 minutes.
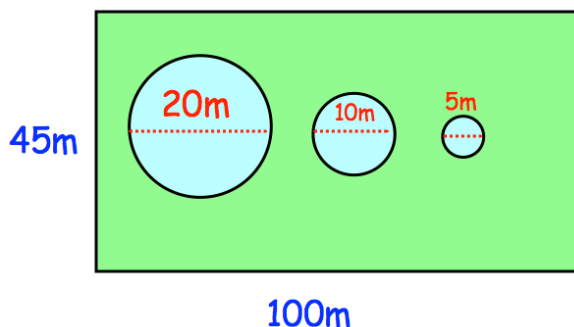Is the scooter breaking the speed limit?

15th August

Corbettmaths

The price (P, in £) of hiring a car is
P = 20d + 70, where d is the number
of days.

Rearrange the formula to make d the
subject

Use your formula to find how many
days a car was hired for if the final
price is £370

Expand

(9 − 2x)(8 − x)

20m

10m

5m

45m

100m

A rectangular lawn is 100m long and
45m wide.
There are 3 circular ponds, with radii
20m, 10m and 5m respectively.
Mrs Jones wants to cover the lawn
with grass seed.
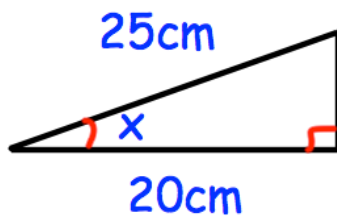Each packet of grass seed covers 5m²
and costs £3.49

How much will it cost Mrs Jones to
cover the lawn with grass seed?

16th August

A farmer says he has 2,500 sheep, to the nearest 100.

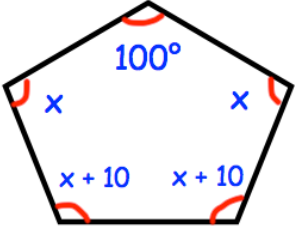What is the greatest possible number of sheep he has?
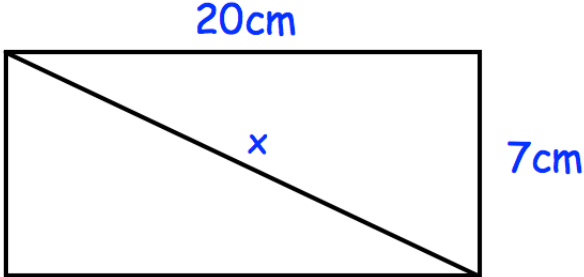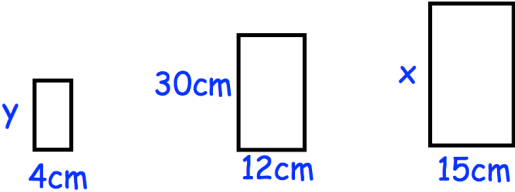

25cm

x

20cm

Find x

The bearing of A from B is 025°
Find the bearing of B from A.

A car decreases in value 15% a year.

If it was bought for £5000, how much will it be worth after 2 years?

A fair coin is flipped three times.
Write down the probability of getting three tails.

17th August

Corbettmaths

$$\underline{99} \quad \underline{97} \quad \underline{95} \quad \underline{93}$$
$$100, 95 \ , 90 \ , 85 \ , \ ... \quad ...$$

Find the nth term

100°

x   x

x + 10   x + 10

Find x

20cm

x

7cm

Find the length of the diagonal of the rectangle.

The mass of Earth is 5.97×10^{24}

The mass of Jupiter is 1.898×10^{27}

Work out how many times heavier Jupiter is than Earth.
Give your answer to one decimal place.

A line has equation $y = -4x$

Write down the gradient of the line

Write down the y-intercept of the line

18th August

Corbettmαths

Solve the inequality $2x - 1 < 9$

Not drawn accurately

y 4cm

30cm 12cm

x 15cm

The diagram shows three similar rectangles.

Work out the value of x.

Work out the value of y.

Bank of Maths

Double your money in 15 years.

The average annual growth for your investment is 4.5%

Martyn has some money to invest and sees this advert.
Will Martyn double his money in 15 years by investing his money with "Bank of Maths?"

There are 6000 people at an ice hockey match.
The announcer says this is exactly 40% more people that the previous match.

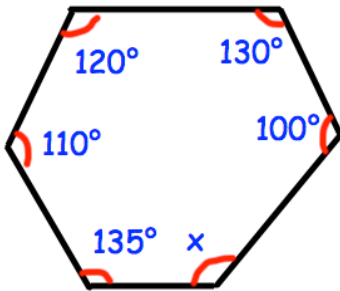Explain why the announcer is incorrect.

19th August

Corbettmaths

Ian truncates a number, y, to one decimal place.

The result is 8.1.

Write down the error interval for y

Find x

Solve the inequality $9x + 4 < 5x - 22$

A rectangle has one side 4cm longer than the other. Write an expression for the area.

Write down the equation of the line that is parallel to $y = 5x + 2$ and passes through (0, 7)
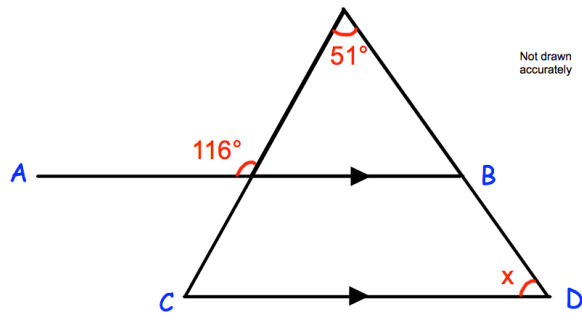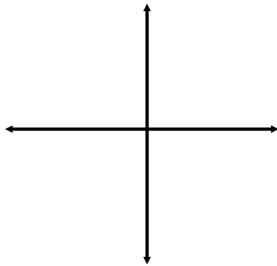
20th August

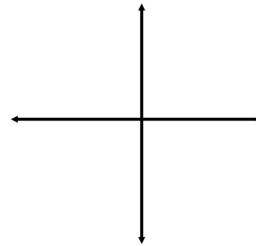Corbettmaths

Use approximations to estimate the value of

$$\frac{4.12 \times 1.89}{0.21}$$
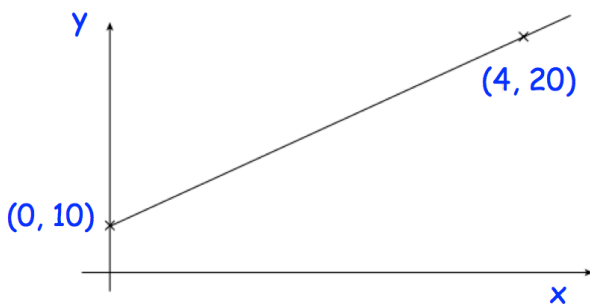

51°

Not drawn accurately

116°

A ————————→ B

C ————————→ D

x

In the diagram, AB is parallel to CD. Work out the size of angle x.

Sketch y = x³

Sketch $y = \frac{1}{x}$ where x ≠ 0

---

y

(4, 20)

(0, 10)

x

Find the equation of this line

Shown is a right angled triangle.

10cm

4cm

x
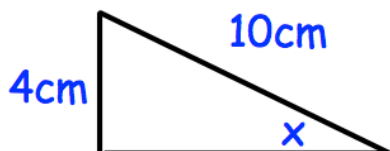
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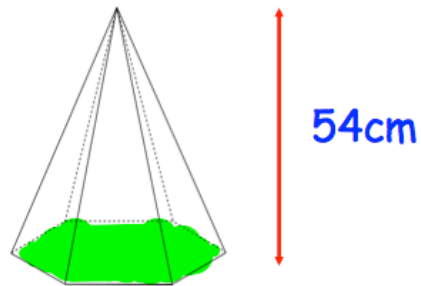

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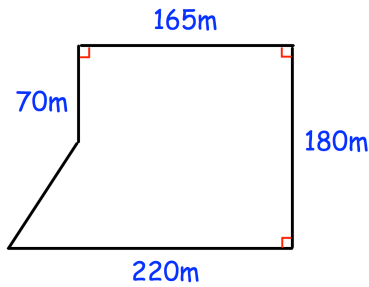Write down an inequality to show the range of possible actual values.

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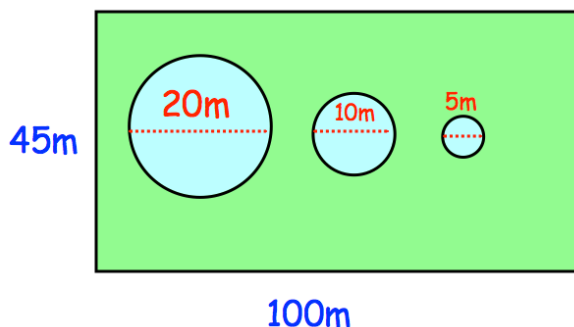Is the scooter breaking the speed limit?

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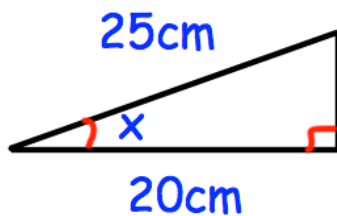Each packet of grass seed covers 5m² and costs £3.49

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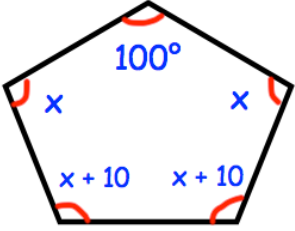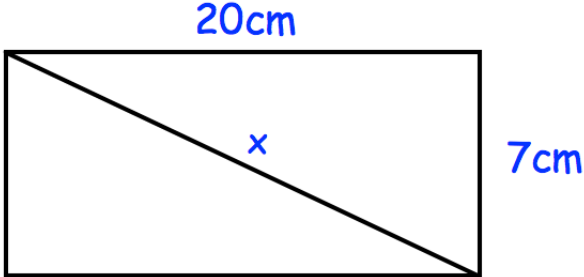
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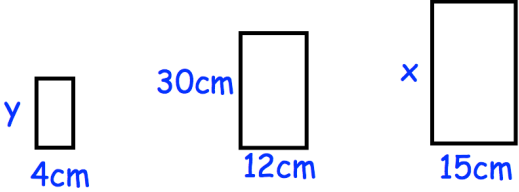---

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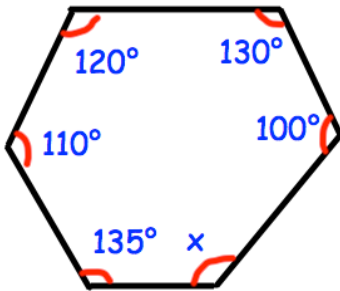
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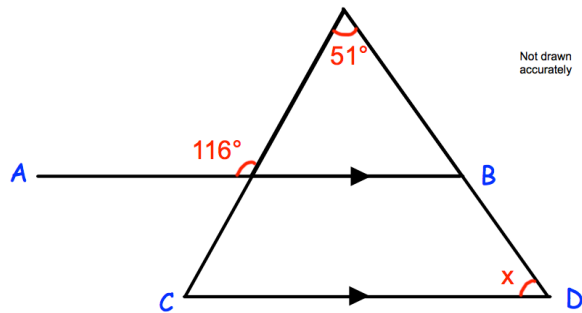Write down the equation of the line that is parallel to $y = 5x + 2$ and passes through (0, 7)
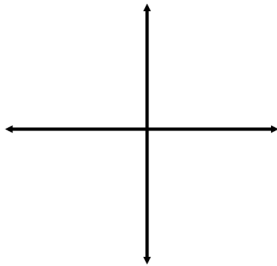
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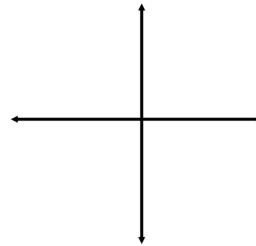
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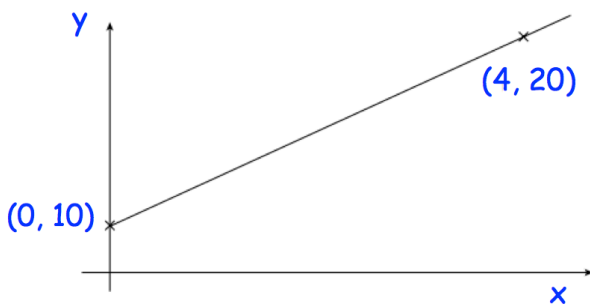In the diagram, AB is parallel to CD. Work out the size of angle x.

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