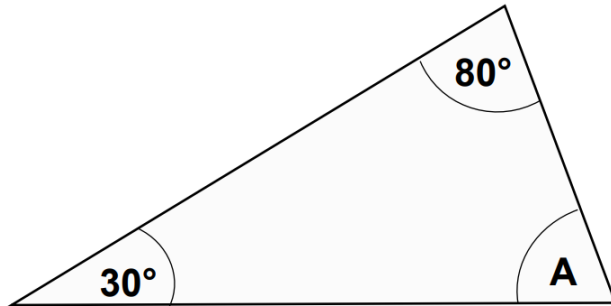


Non-calculator Questions

City & Guilds

1.

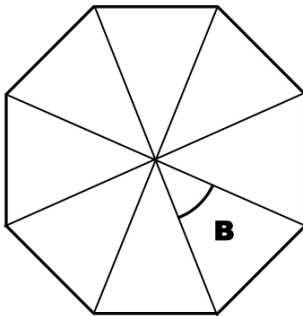


Calculate the size of angle A.

(1 mark)

2.

The diagram shows a regular polygon.



What is the size of angle B.

(1 mark)

3.

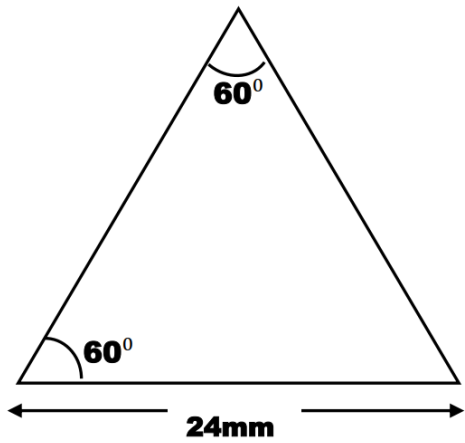


Diagram not to scale

What is the perimeter of this triangle?

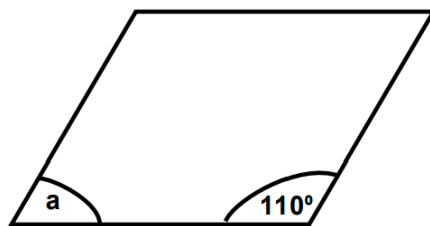
mm

(1 mark)

4.

The following diagram shows a parallelogram.

Diagram not to scale

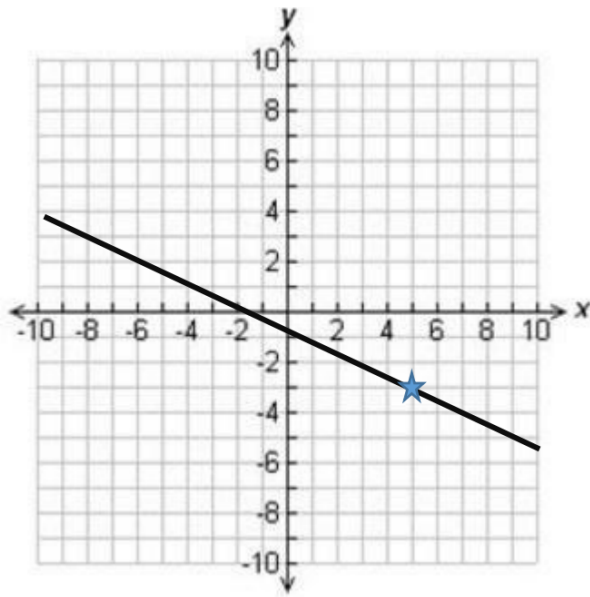


What is the size of angle a ?

Angle $a =$ $^\circ$

(1 mark)

5.



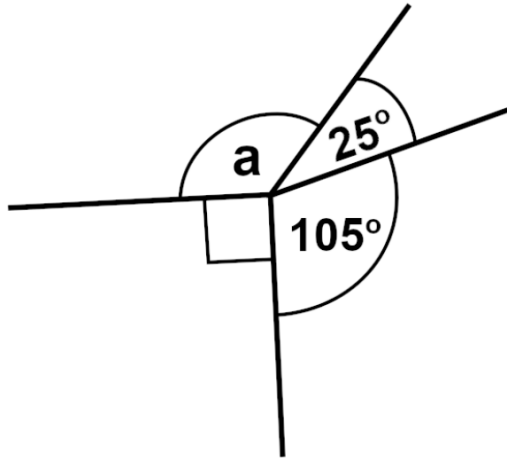
What are the coordinates of the line at point ★?

(tick one box)

- A (-5, 3)
- B (5, -3)
- C (-3, 5)
- D (3, -5)

(1 mark)

6.



What is the value of angle **a**?

Angle **a** °
(1 mark)

Highfield

7.

Calculate the value of angle x in this isosceles triangle.

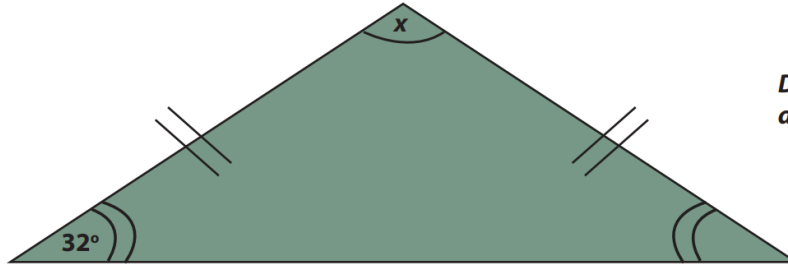


Diagram not drawn to scale

Show your working out and write the answer in the box below.

(2 marks)

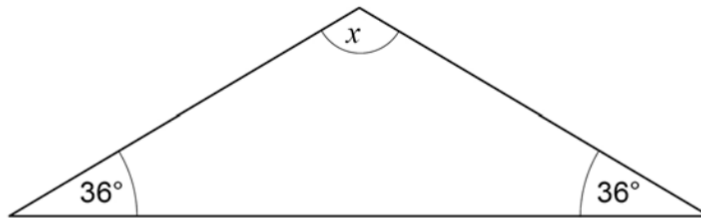
Answer: _____^o

AQA

8.

Work out the size of angle x in this triangle.

[2 marks]



Not drawn accurately

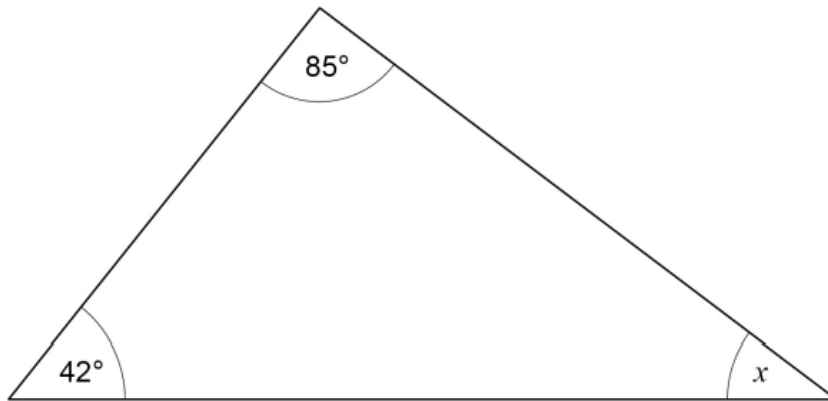
Answer _____^o

9.

Work out the size of angle x .

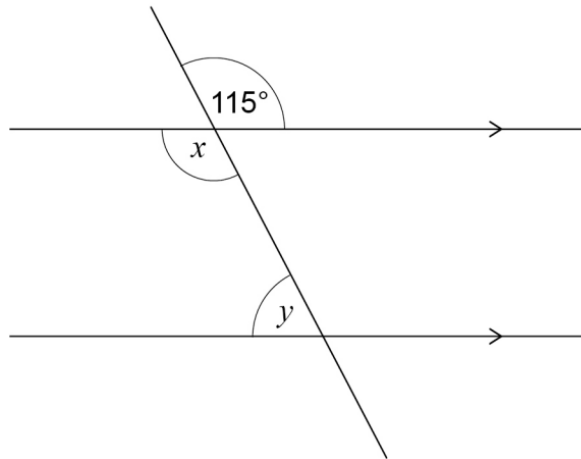
[2 marks]

Not drawn accurately



Answer _____^o

10.



Not drawn accurately

Work out the size of angle x and the size of angle y .

[2 marks]

$x =$ _____ $^\circ$

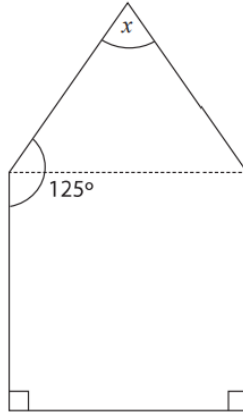
$y =$ _____ $^\circ$

Calculator Questions

Edexcel

1.

Here is a pentagon.



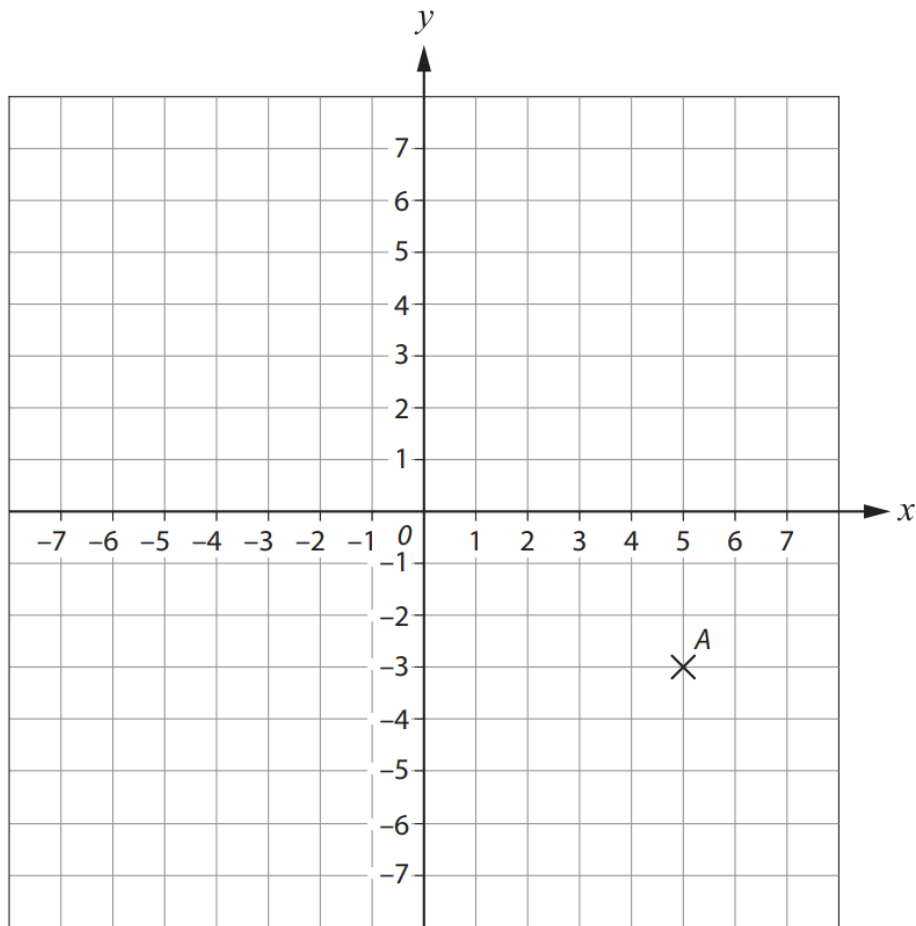
The pentagon has one line of symmetry.

Work out the size of the angle marked x .

(3)

2.

Here is a coordinate grid.



(a) Write down the coordinates of point A.

(1)

(b) Plot point B with coordinates $(-4, 6)$ on the grid.
Remember to label your point.

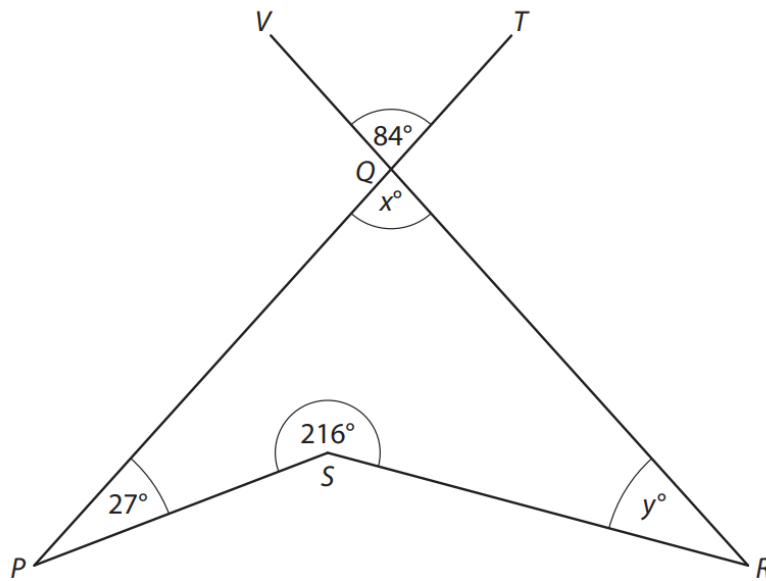
(1)

(c) Plot a point C on the grid so that angle ACB is a right angle.
Remember to label your point.

(1)

3.

$PQRS$ is a quadrilateral.



PQT is a straight line.

RQV is a straight line.

(a) Write down the value of x .

(1)

(b) Work out the value of y .

(2)

NCFE

5.

Archaeologists study human history by digging up and analysing items from the past.

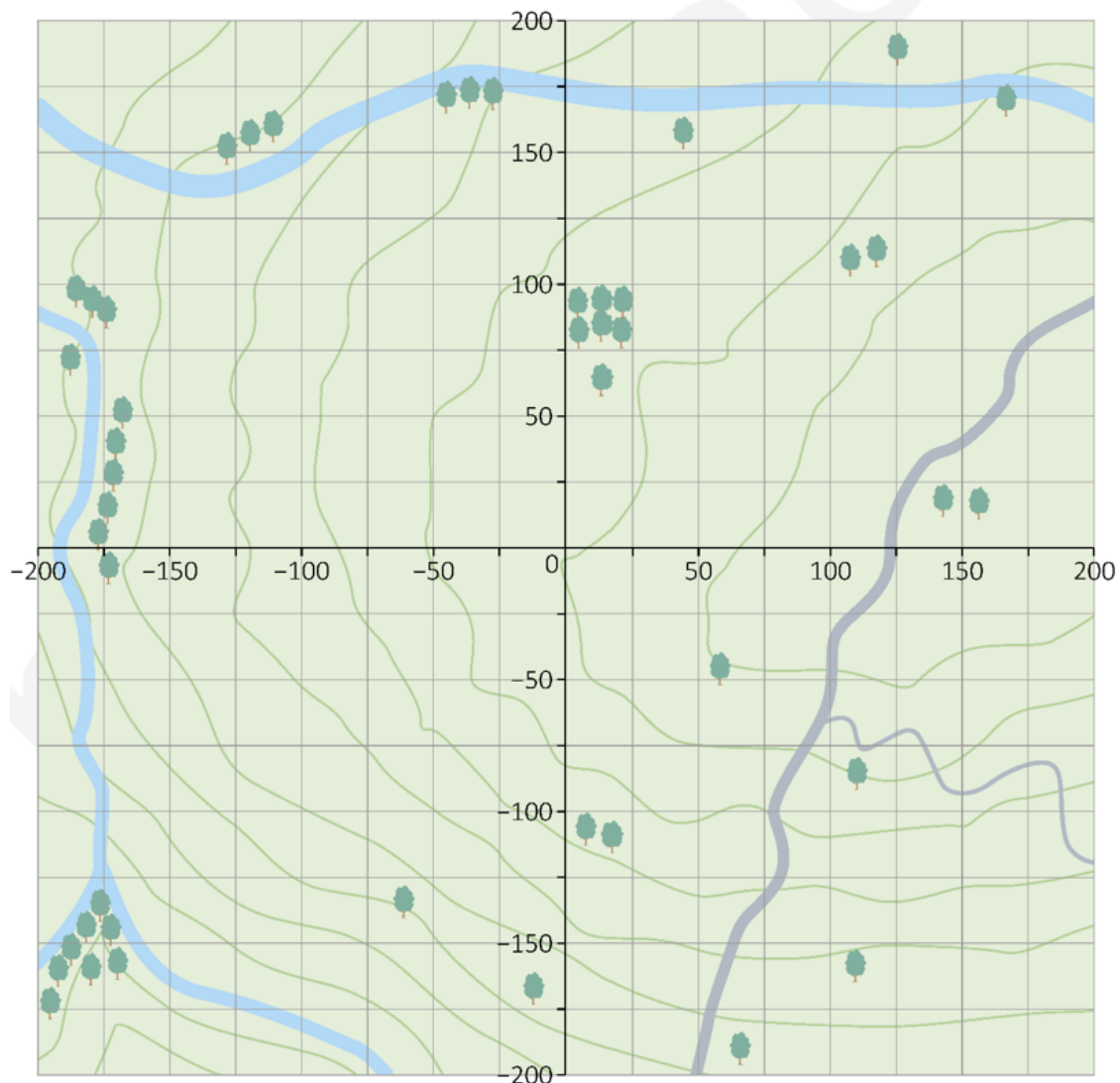
Chen is a volunteer with a community archaeology group.
At the weekends she helps to dig at an archaeological site.

The volunteers have to record exactly where each item is found.
They do this by using a coordinate grid laid over a map of the site.

The volunteers have found the wall of a building.
It runs in a straight line from $(-125, 100)$ to $(150, -75)$

Draw the position of the wall on the grid.

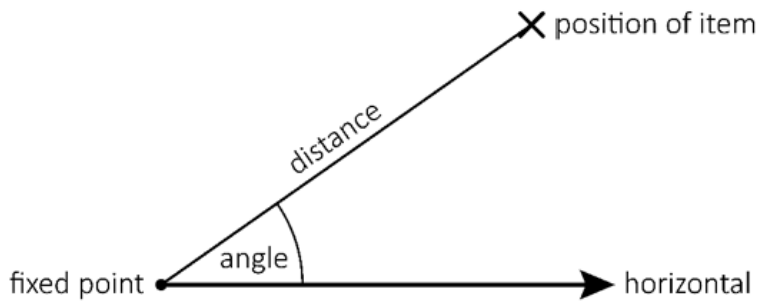
[2 marks]



6.

There is another way that the volunteers can record the position of an object:

- measure the object's distance from a fixed point and
- measure the angle (see example in the diagram below).



The volunteers find an object at the point (100, 100) on the coordinate grid.

i) Mark the point on the grid in **4 (a)**.

The volunteers measure the distance of the object from the fixed point (0, 0)
They then measure the angle.

ii) What size is the angle?

[2 marks]

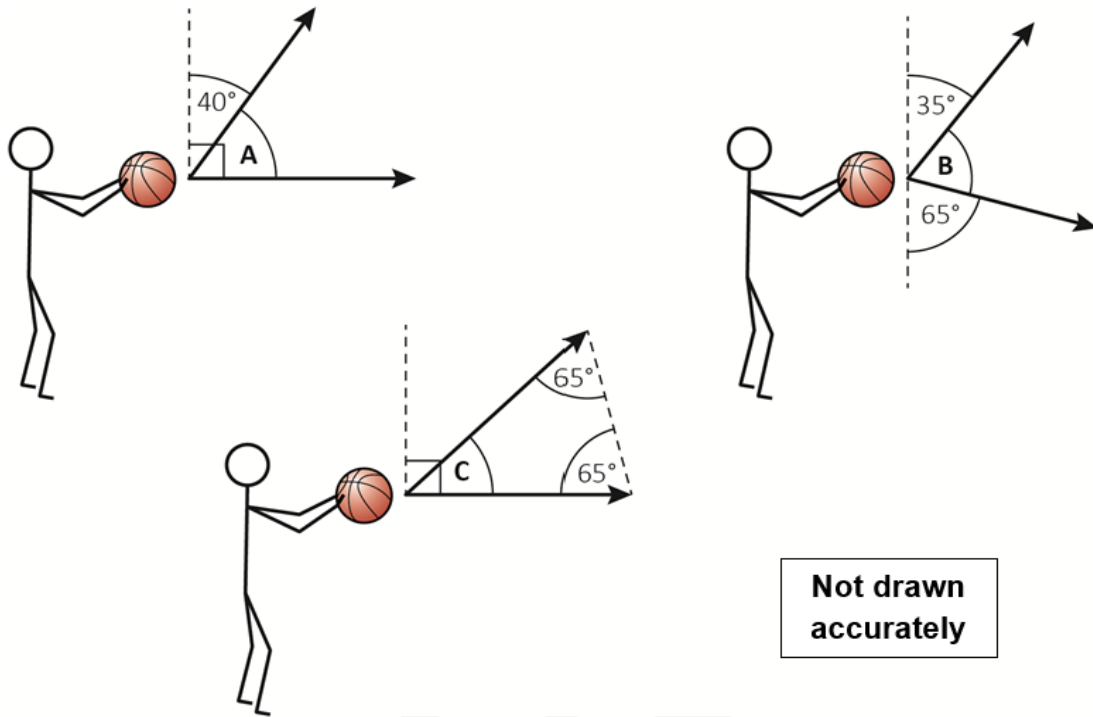
Your answer:

degrees

7.

Lottie reads that the best angle to launch the ball from for free throws is 50°

Calculate the angles A, B and C.



Not drawn accurately

Tick the ones which are 50°

[1 mark]

Space for your workings:

Your answer:

A

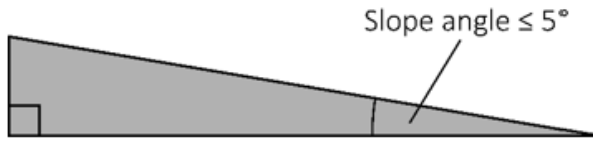
B

C

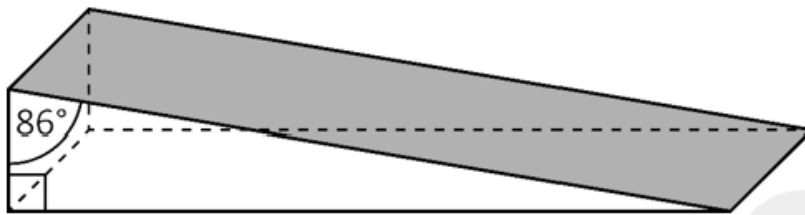
8.

The group need to build a ramp between the hospital door and the gardens.

The angle of the slope of the ramp must not be more than 5°



This is a diagram of the ramp:



Calculate the angle of the slope.

[1 mark]

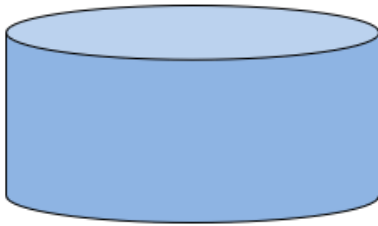
Your answer:

°

9.

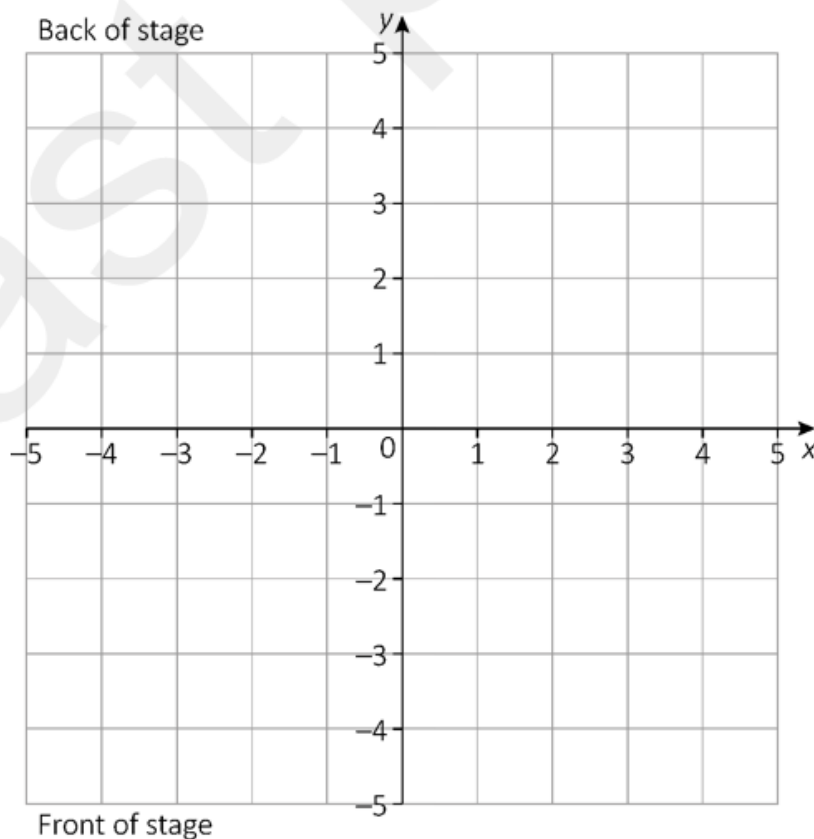
Jan is an apprentice in a theatre.
She needs to plan the layout of the stage for the next play.

A prop is an object used on stage.
One of the props is a cylinder with radius 1.5 m



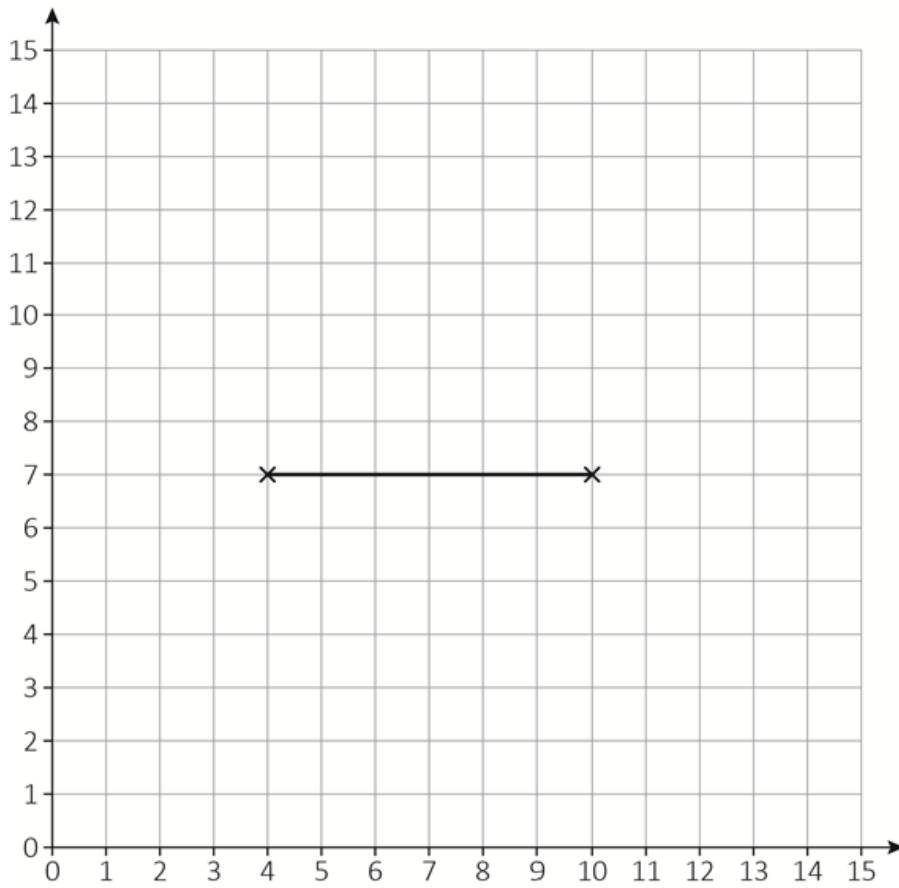
Jan uses a coordinate grid to plan where to put props on the stage.
Each small square on the grid represents a 1 m by 1 m square on the real stage.
She wants the centre of the cylinder to be at $(-3, 2)$
On the grid, draw a plan view of the cylinder in this position.

[2 marks]



10.

The coordinate grid shows the space for the car park:



The car park is rectangular. It measures 120 m by 100 m

Each square on the grid represents 20 m by 20 m

Pavel draws two vertices and one edge of the car park area on the grid.

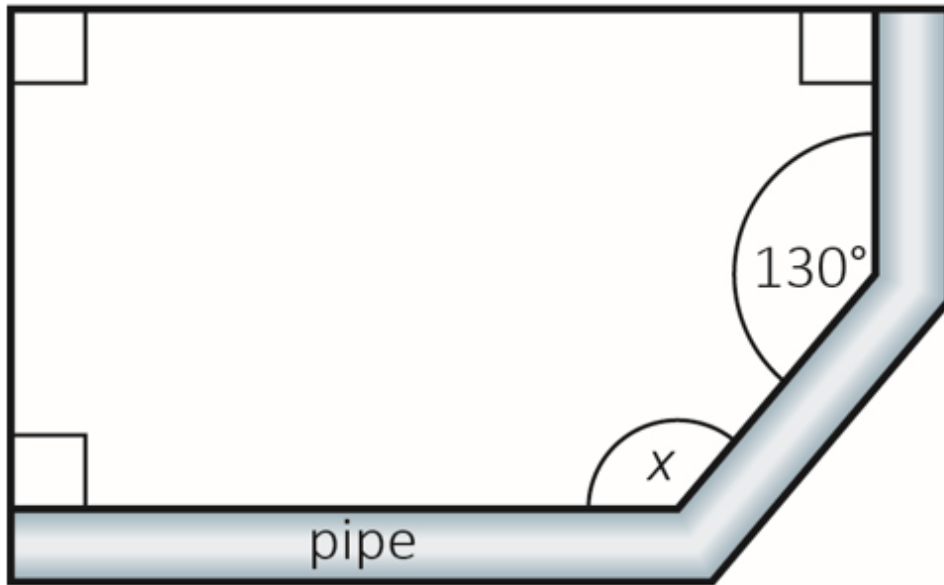
Write down possible coordinates for the other two vertices of the car park.

[2 marks]

Your answer:

11.

Judy has this plan view of a section of the water pipe system in a building.



She knows that the sum of interior angles in a pentagon is 540°

Calculate the value of angle x

[2 marks]

PAST PAPER

Your answer:

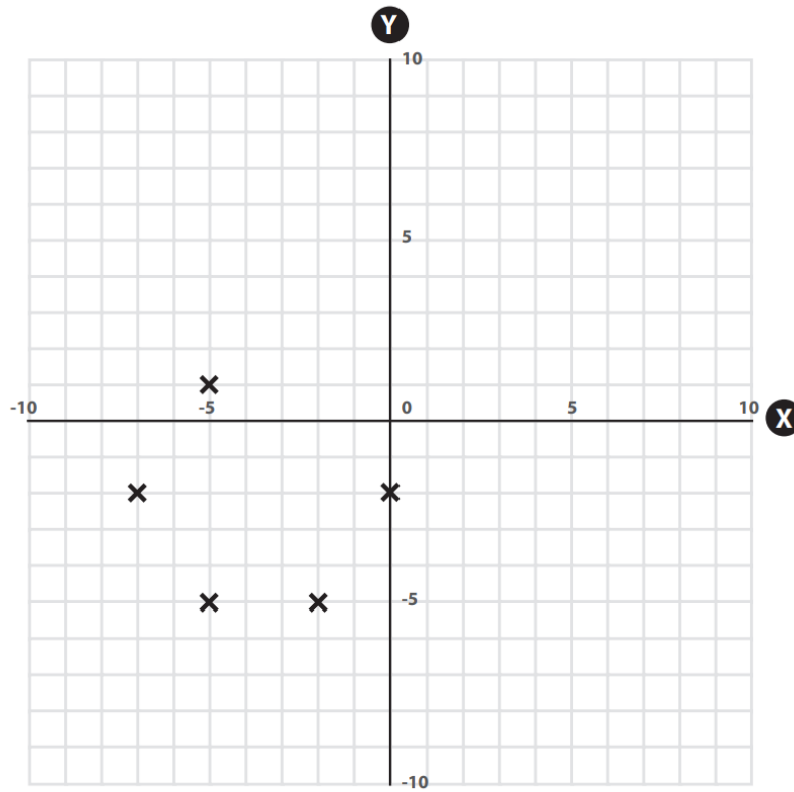
°

Highfield

12.

Five corners of a **hexagon** are drawn on the grid below.

What are the coordinates of the sixth corner?



Write the answer in the box below.

(1 mark)

Answer: _____

13.

The diagram below shows an isosceles triangle with 2 equal sides and 2 equal angles, as marked.

Calculate the value of angle z .

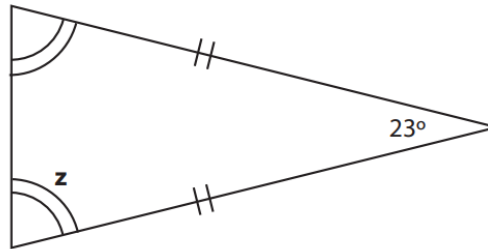


Diagram not to scale

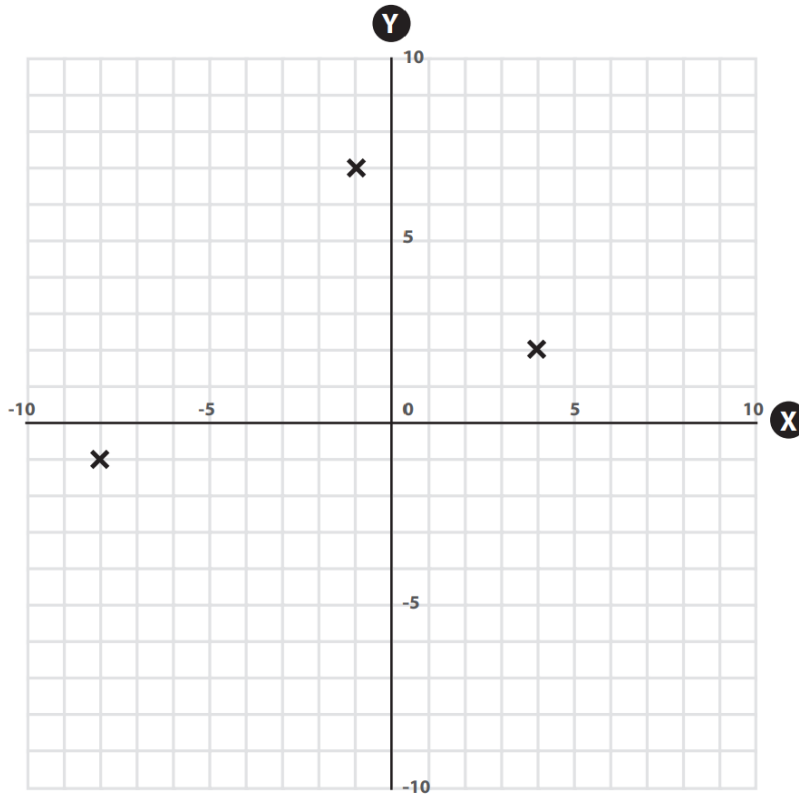
Show your working out and write the answer in the box below.

(2 marks)

Answer: _____^o

14.

Three corners of a **rectangle** are marked on the grid below:



What are the coordinates of the fourth corner?

Write the answer in the box below.

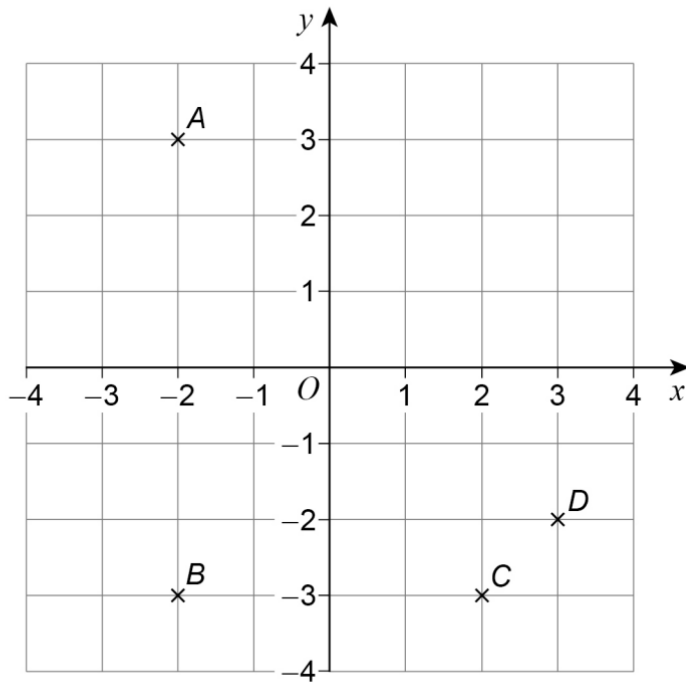
(1 mark)

Answer: _____

AQA

15.

Which point has the coordinates $(-2, 3)$?



Circle your answer.

[1 mark]

A

B

C

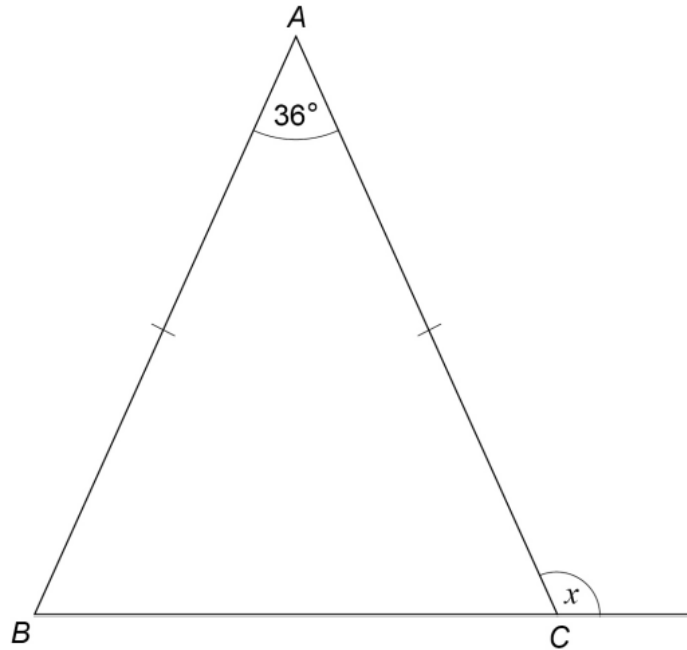
D

AQA

16.

Here is an isosceles triangle.

$$AB = AC$$

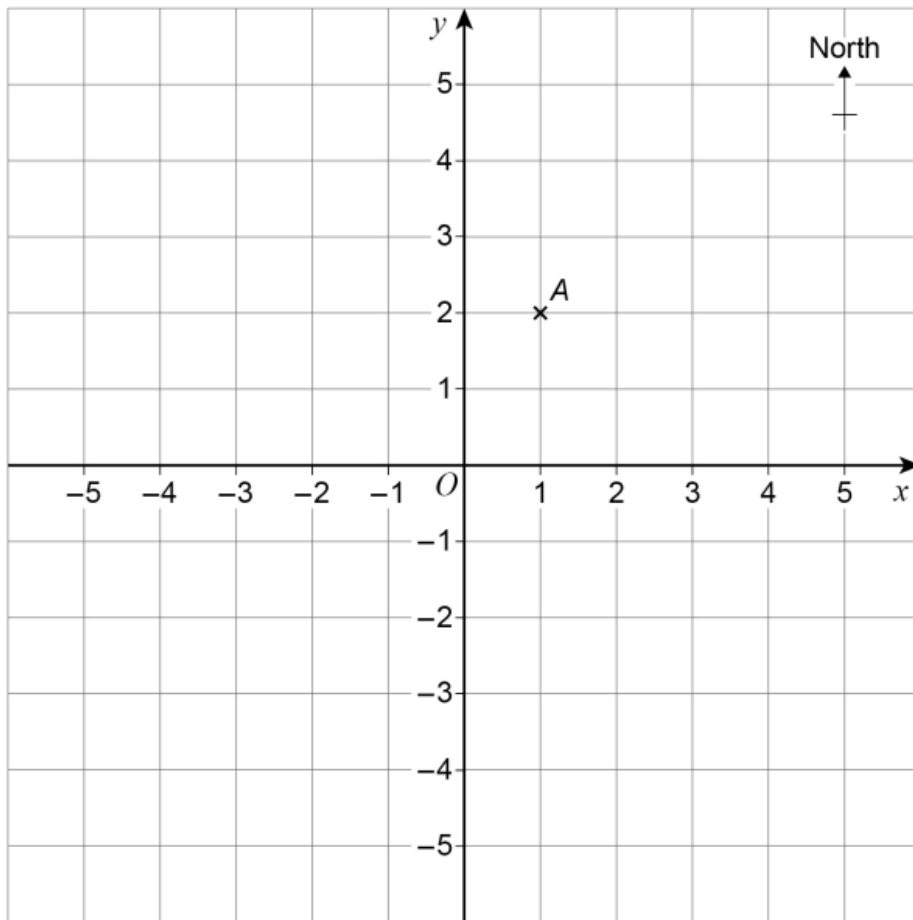


Work out the size of angle x .

[3 marks]

Answer _____ °

17.



A is the point (1, 2)

B is the point

3 squares West of *A*

and

5 squares South of *A*.

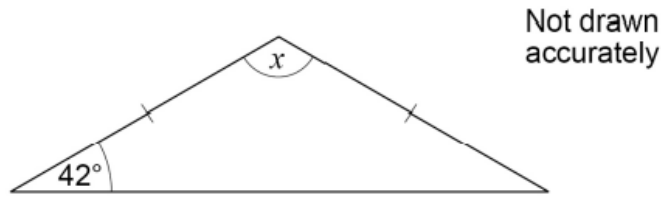
Work out the coordinates of *B*.

[2 marks]

Answer (_____ , _____)

18.

Here is an isosceles triangle.



Work out the size of angle x .

[2 marks]

Answer _____ °