

Name:

Exam Style Questions

Missing Angles



Equipment needed: Pen, Calculator

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Video 30, 33, 34, 35, 37, 39



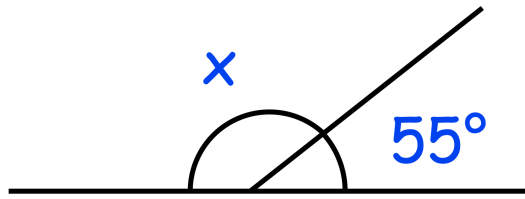
Answers and Video Solutions



1.



Not drawn accurately



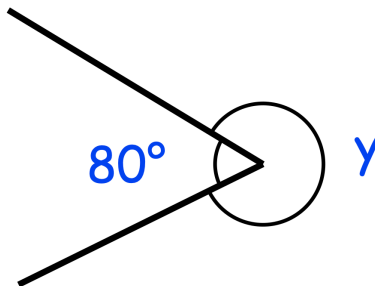
Work out the size of angle x

.....°
(1)

2.



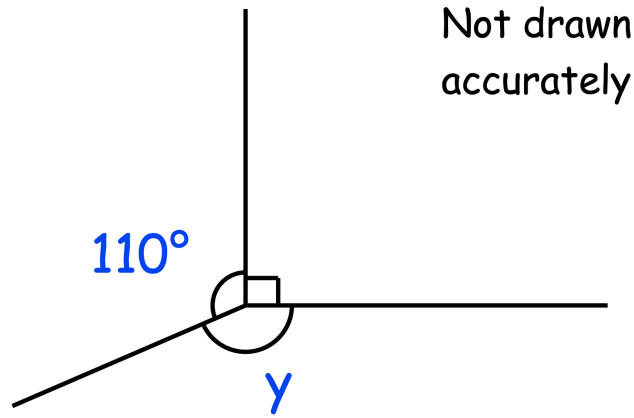
Not drawn accurately



Work out the size of angle y

.....°
(1)

3.



- (a) (i) Work out the size of the angle marked y .

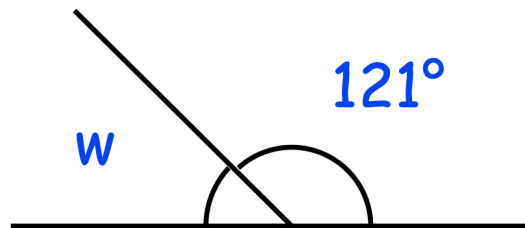
.....°

- (ii) Give a reason for your answer.

.....
.....

(2)

Not drawn accurately



- (b) (i) Work out the size of the angle marked w .

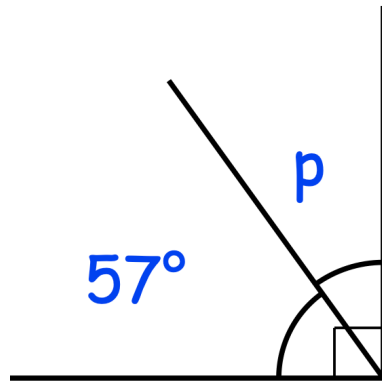
.....°

- (ii) Give a reason for your answer.

.....
.....

(2)

Not drawn accurately



(c) (i) Work out the size of the angle marked p .

.....°

(ii) Give a reason for your answer.

.....

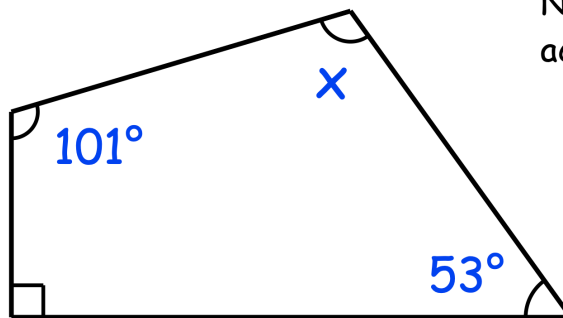
.....

(2)

4. Shown below is a quadrilateral.



Not drawn accurately

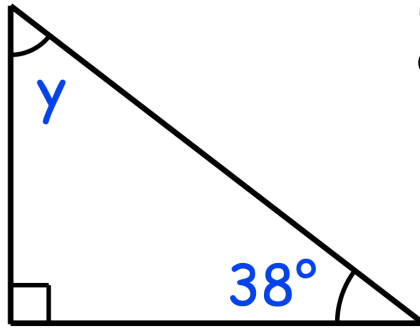


Work out the size of the angle marked x .

.....°

(2)

5. Shown is a right angled triangle.

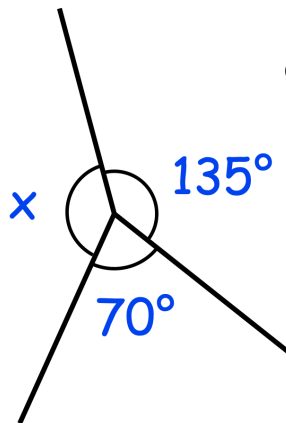


Not drawn accurately

Work out the size of angle y.

.....°
(2)

6.



Not drawn accurately

(a) Work out the size of the angle marked x.

.....°

(b) Give a reason for your answer.

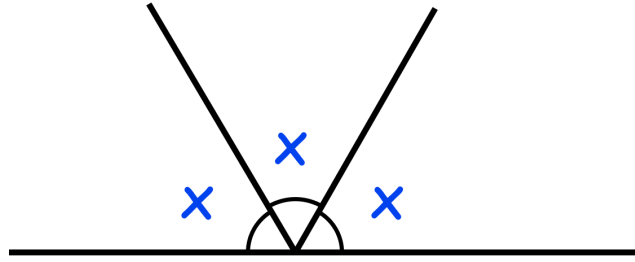
.....
.....

(2)

7.



Not drawn accurately



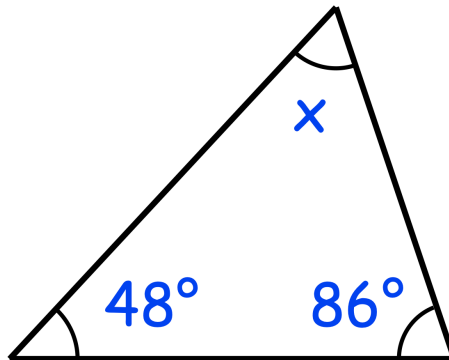
Work out the size of x .

.....°
(2)

8.



Not drawn accurately



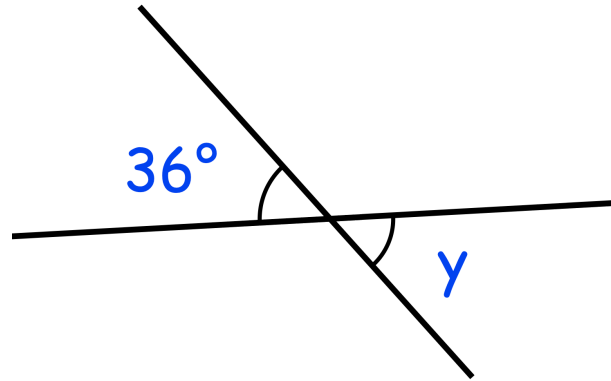
Work out the size of angle x .

.....°
(2)

9. Shown below are two straight lines.



Not drawn accurately



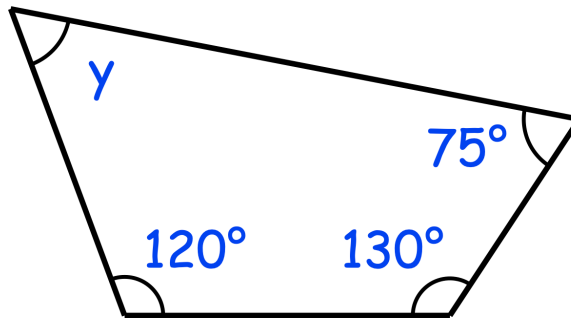
Write down the size of y

.....°
(1)

10. Shown below is a quadrilateral.



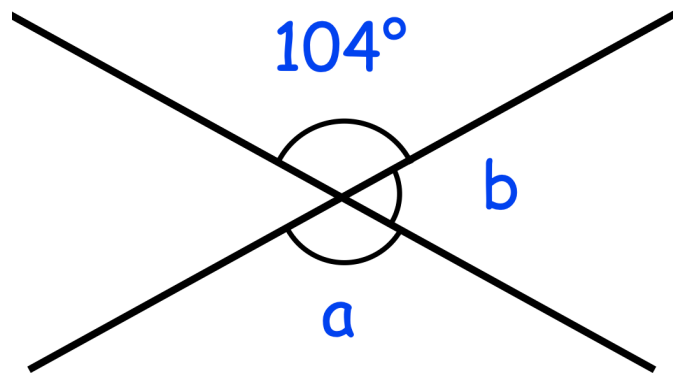
Not drawn accurately



Work out the size of angle y

.....°
(2)

11.



(a) Work out the size of angle a.

.....°
(1)

(b) Work out the size of angle b.

.....°
(1)

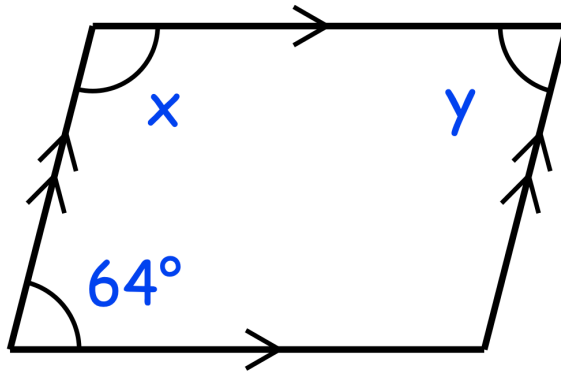
12. The sizes of three of the angles in a quadrilateral are 25° , 30° and 65°



Work out the size of the fourth angle.

.....°
(2)

13.



The diagram above shows a parallelogram.

(a) Work out the size of the angle marked x.

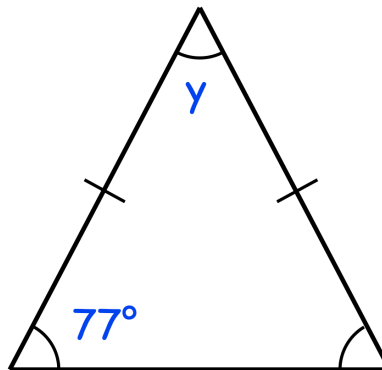
.....°

(b) Work out the size of the angle marked y.

.....°

(2)

14. Shown below is an isosceles triangle.

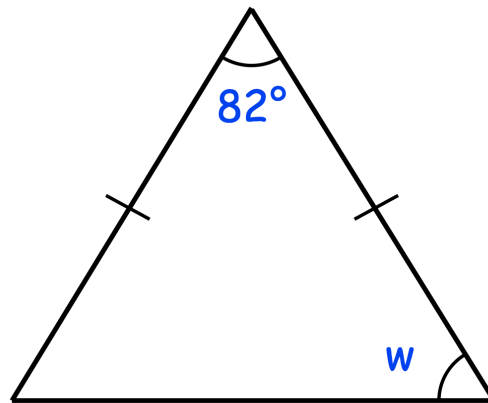


Work out the size of the angle marked y.

.....°

(2)

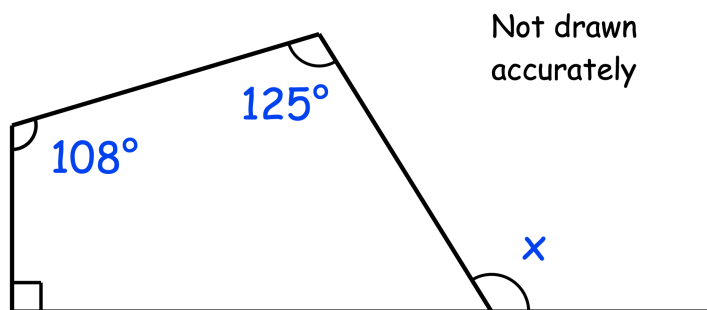
15. Shown below is an isosceles triangle.



Work out the size of the angle marked w.

.....°
(2)

16.



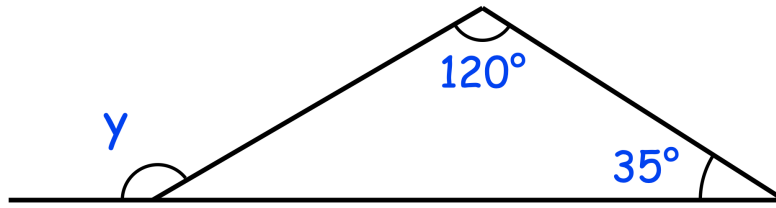
Work out the size of the angle marked x.

.....°
(3)

17.



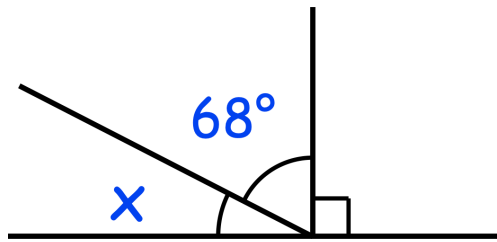
Not drawn accurately



Work out the size of angle y.

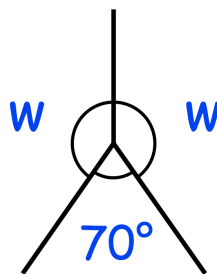
.....°
(3)

18.



(a) Calculate angle x.

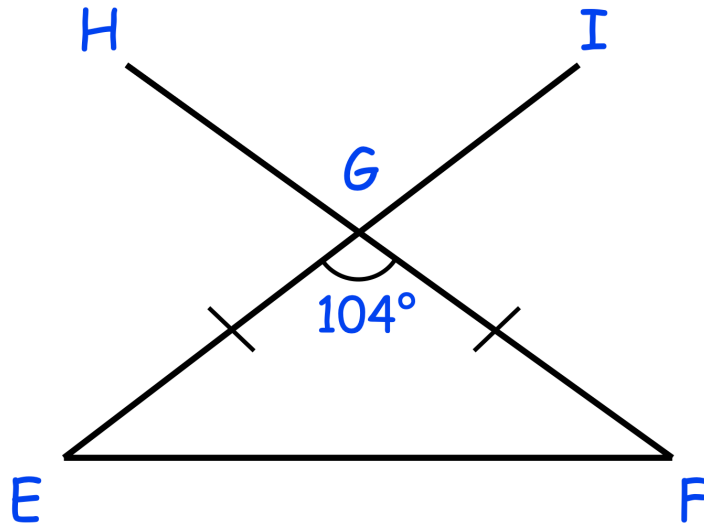
.....°
(1)



(b) Calculate angle w.

.....°
(1)

19.



Triangle EFG is an isosceles triangle.
Lines FGH and EGI are straight lines.
Angle EGF is 104°

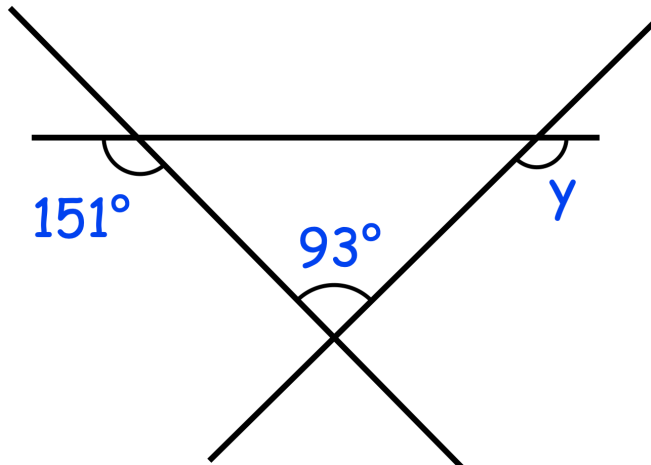
(a) Find the size of angle HGI.

.....^o
(1)

(b) Find the size of angle EFG.

.....^o
(2)

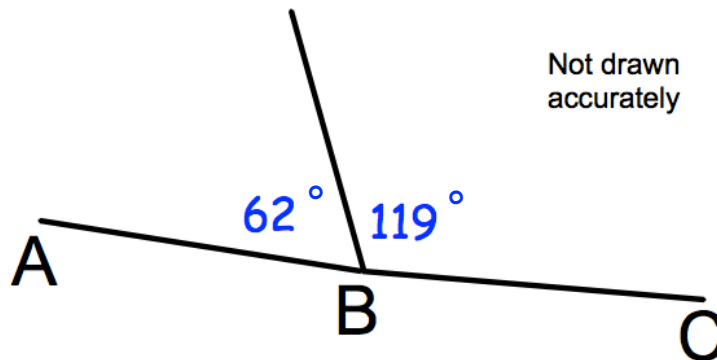
20. Below are 3 straight lines.



Find the size of angle y .

.....
(3)

21. Bernard says AC is a straight line.



Is he correct?
Explain your answer.

.....
.....
(2)

22. Reece has drawn two triangles.



He says that the first triangle has one reflex angle and two acute angles.

(a) Explain why this is not possible.

.....
.....

(2)

He says that the second triangle has two obtuse angles and one acute angle.

(b) Explain why this is not possible.

.....
.....

(2)

23. An isosceles triangle has one angle of 84°



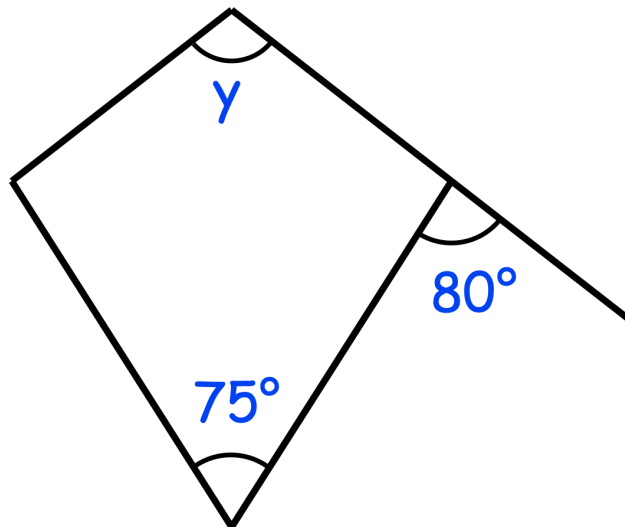
Write down the possible sizes of the other two angles in the triangle.

Pair 1 and degrees

Pair 2 and degrees

(3)

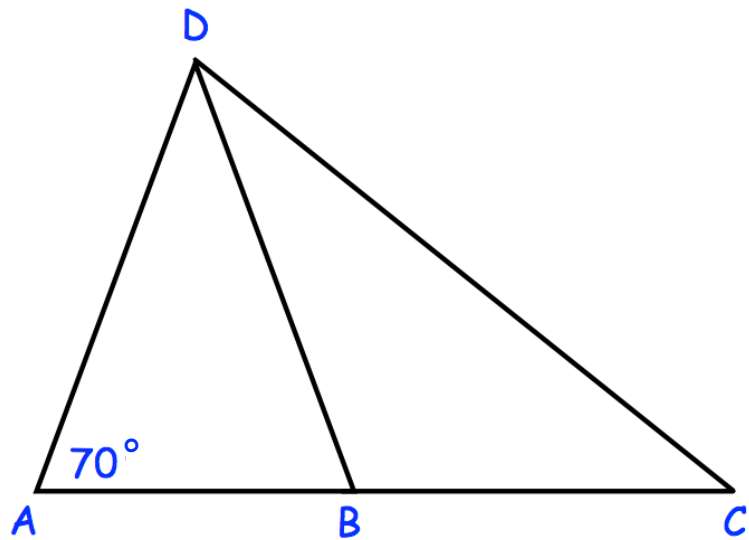
24. Below is a kite.



Calculate the size of angle y

.....
(3)

25.



Triangles ABD and BCD are both isosceles.

$AD = BD$

AC is a straight line.

Is $\angle ADC$ a right angle?

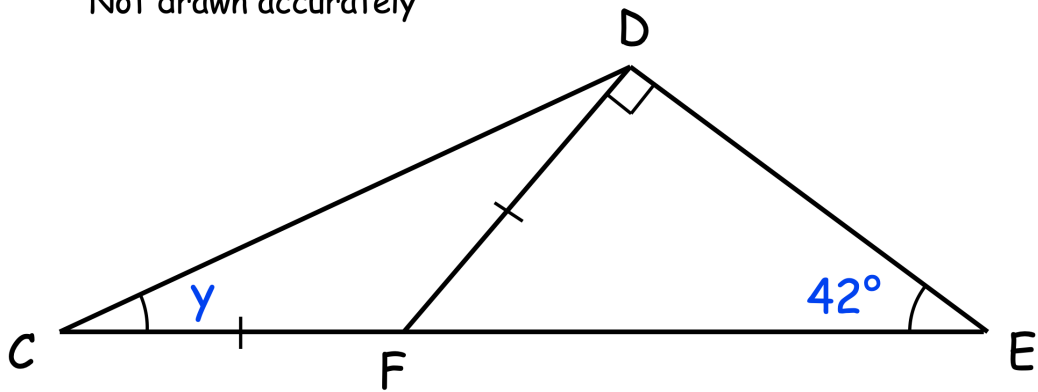
Clearly explain your answer.

(4)

26.



Not drawn accurately



CFE is a straight line.

Angle EDF is a right angle.

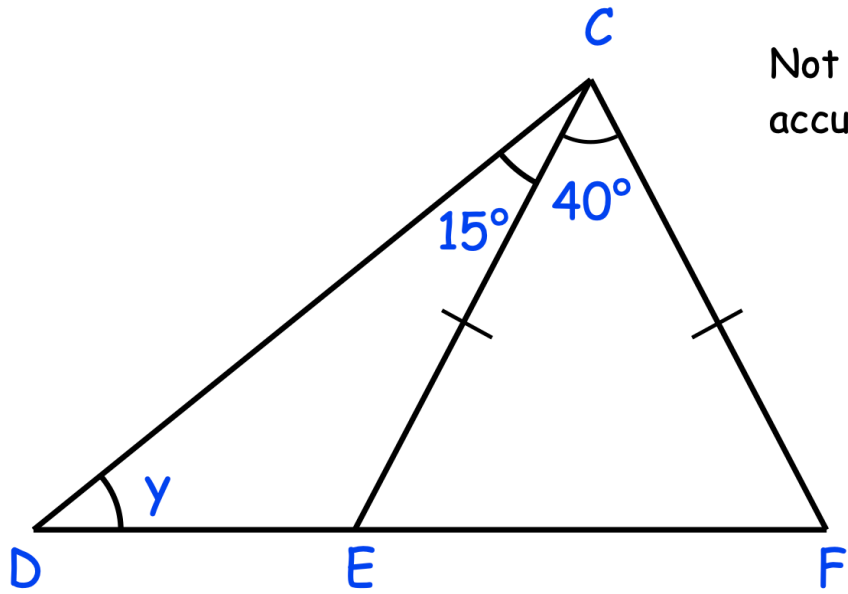
Angle DEC is 42°

$CF = DF$

Work out the size of angle DCE.

.....^o
(4)

27.



Not drawn
accurately

DEF is a straight line.

$CE = CF$.

Angle ECF is 40°

Angle DCE is 15°

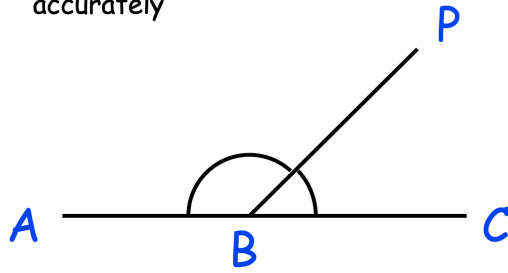
Find the size of the angle marked y .

.....^o
(4)

28. ABC is a straight line.



Diagram
not drawn
accurately

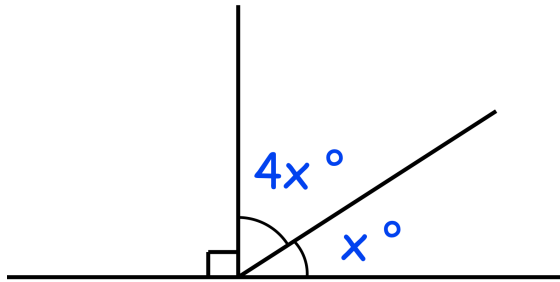


The ratio of angle ABP to CBP is 7 : 3

Find the size of angle ABP

.....°
(4)

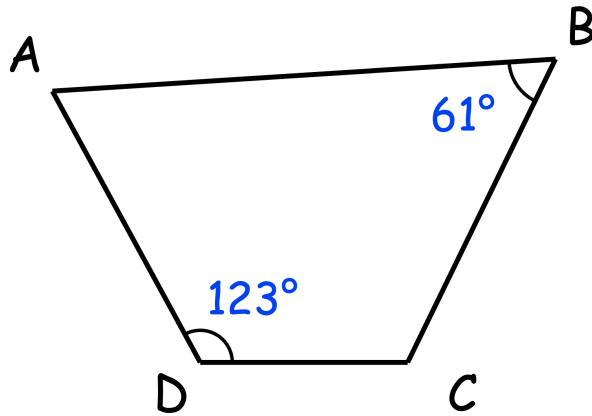
29.



Work out the value of x

.....°
(3)

30. ABCD is a quadrilateral



Angle BCD = $3 \times$ Angle DAB

Work out the size of angle BCD

.....^o
(3)

31. The three angles in a triangle are in the ratio $2 : 6 : 7$



Work out the size of the smallest angle.

.....^o
(3)