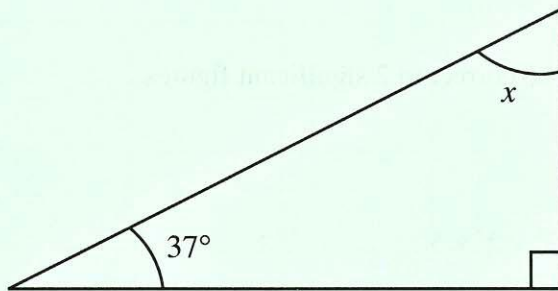
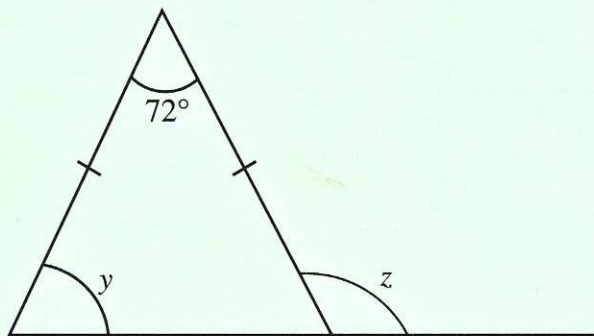


1. Find the values of the angles marked x , y and z .



$x = \dots\dots\dots^\circ$

[2]

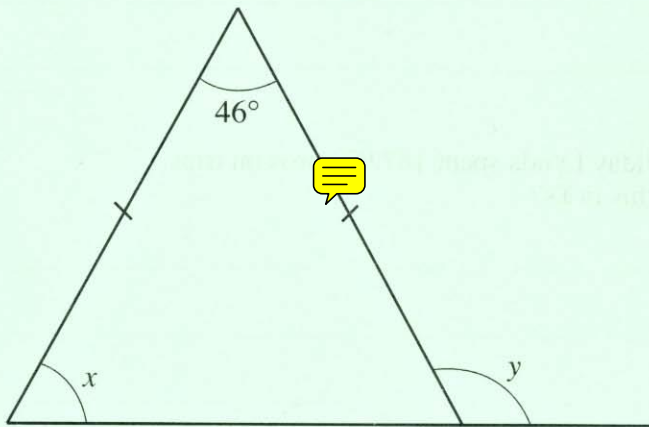


$y = \dots\dots\dots^\circ$

$z = \dots\dots\dots^\circ$

[3]

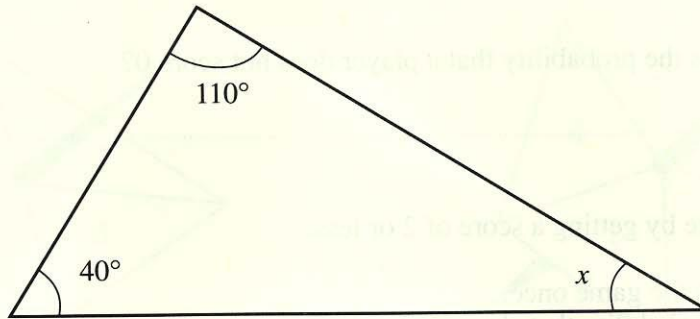
4. Find the values of the angles marked x and y .



$x = \dots\dots\dots^\circ$

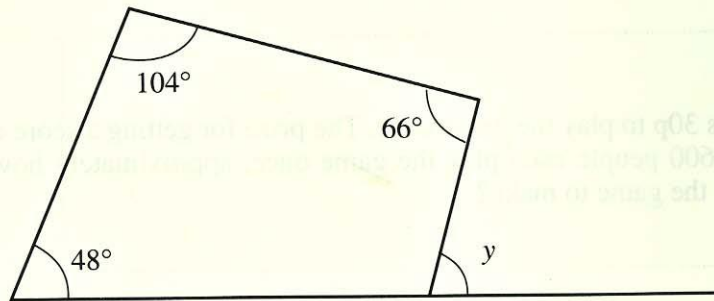
$y = \dots\dots\dots^\circ$

6. Find the angles marked x and y in the following diagrams.



$x = \dots\dots\dots^\circ$

[1]



$y = \dots\dots\dots^\circ$

[2]

2. (a) Find the value of the angle marked x .

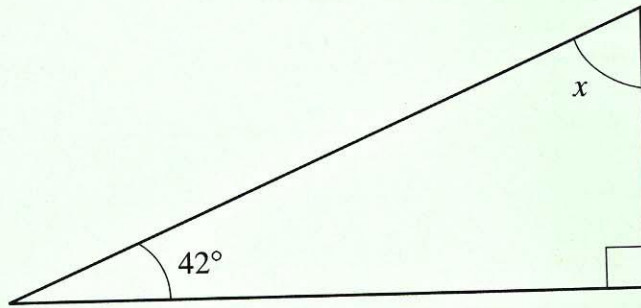


Diagram not drawn to scale.



$x = \dots\dots\dots^\circ$ [2]

(b) Find the value of the angle marked y .

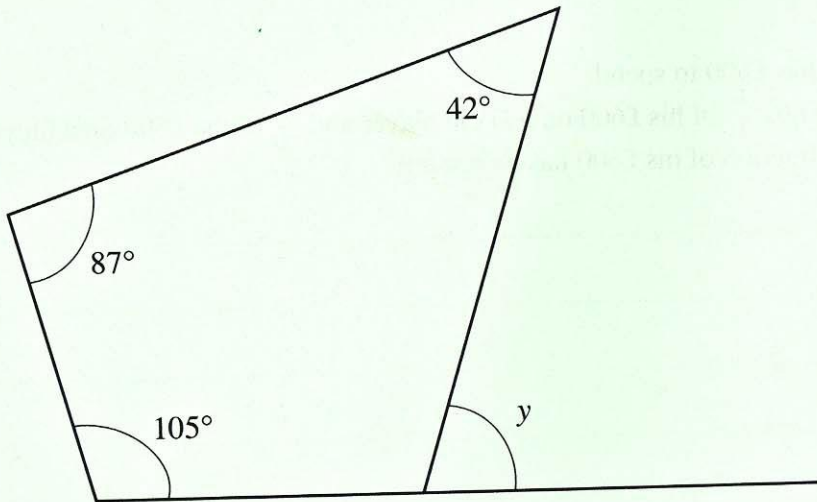


Diagram not drawn to scale.

$y = \dots\dots\dots^\circ$ [3]

11. The diagram shows the parallelogram $ABCD$ in which $\widehat{ADC} = 44^\circ$.
 The line AE is drawn so that $\widehat{BAE} = 62^\circ$.

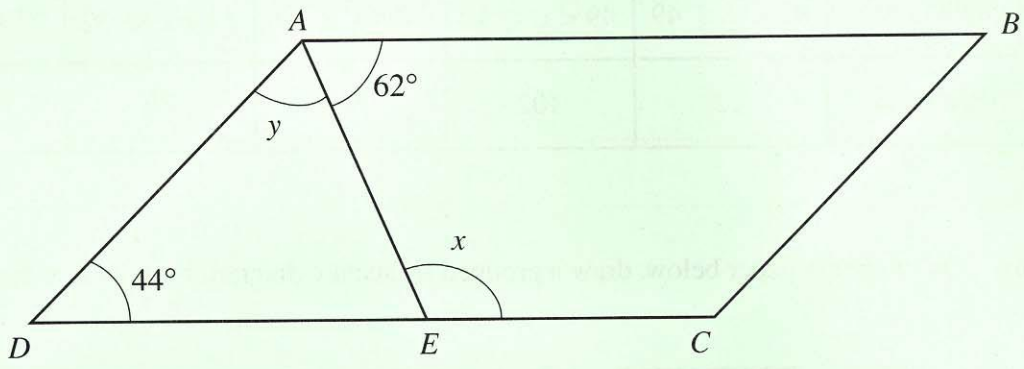



Diagram not drawn to scale.

- (a) Find the value of the angle marked x . 

.....

.....

.....

.....

.....

[2]

- (b) Find the value of the angle marked y .

.....

.....

.....

[2]

10. In the diagram below, $ABCD$ is a parallelogram in which $\widehat{DAC} = 64^\circ$ and $\widehat{ABC} = 76^\circ$. The line QR is parallel to the sides AD and BC .

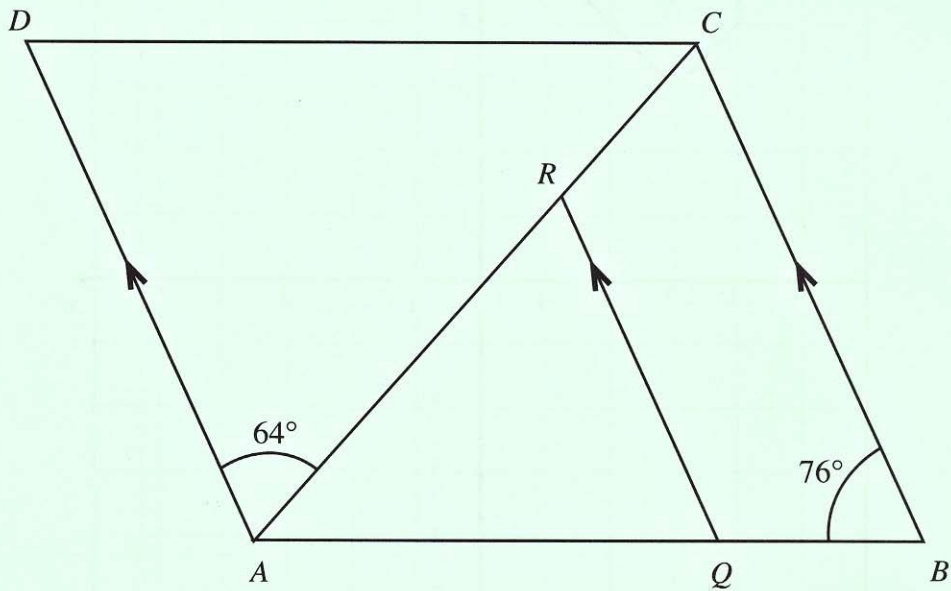


Diagram not drawn to scale.



Find the value of

(a) \widehat{CAB} ,

.....

.....

.....

.....

[2]

(b) \widehat{CRQ} .

.....

.....

.....

.....

[2]

2. Find the size of the angle marked x .

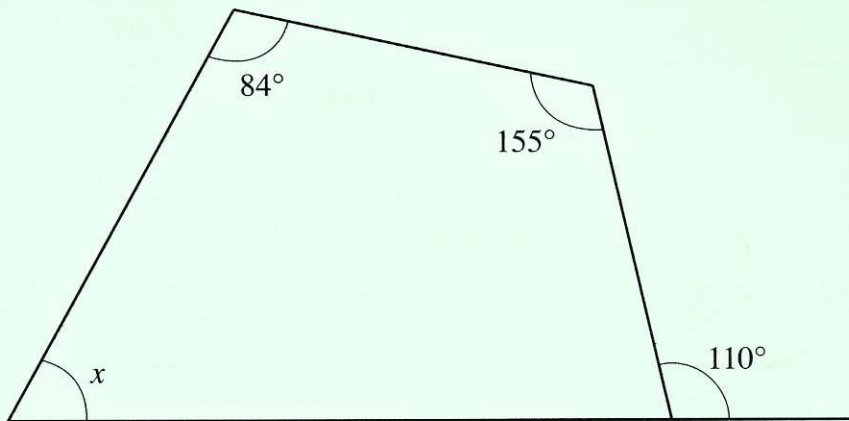


Diagram not  wn to scale.

$x = \dots\dots\dots^\circ$

[2]

8. $ABCD$ and $ADEF$ are two parallelograms in which $\widehat{ADC} = 130^\circ$ and $\widehat{DEF} = 60^\circ$. Find \widehat{BAF} .

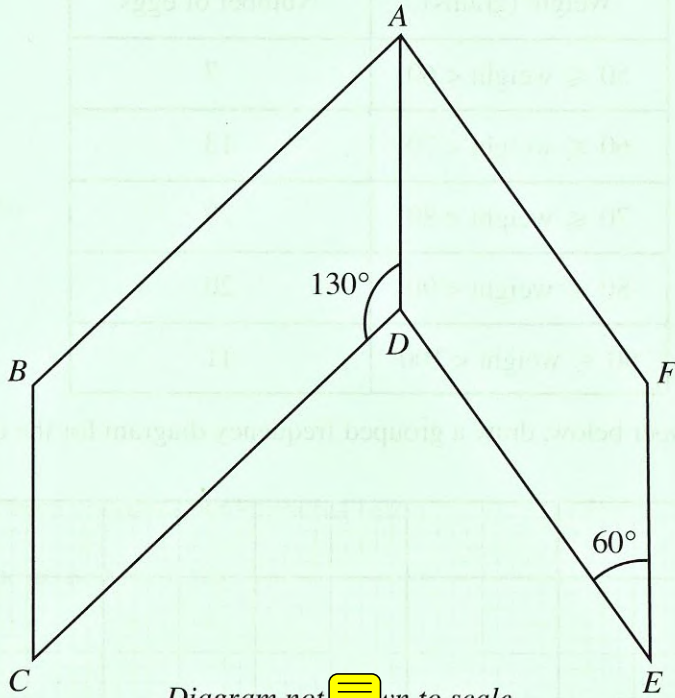


Diagram not n to scale.

6. $ABCD$ is a kite. Calculate the size of the angle marked x .

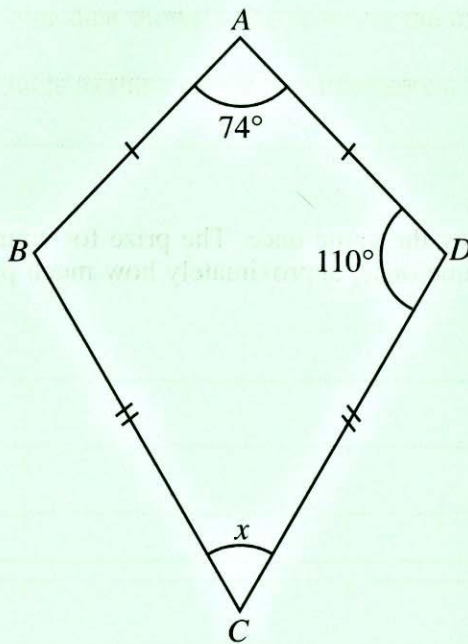
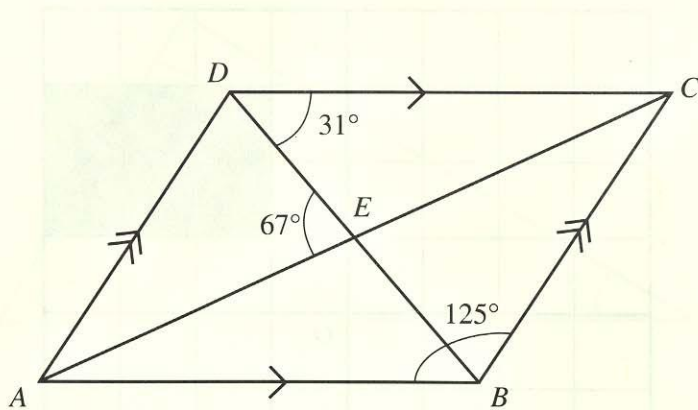


Diagram not drawn to scale.

$x = \dots\dots\dots^\circ$

8. $ABCD$ is a parallelogram. Its diagonals intersect at the point E .

$$\widehat{CDB} = 31^\circ, \widehat{DEA} = 67^\circ \text{ and } \widehat{ABC} = 125^\circ.$$



Find the value of

(a) \widehat{DBA} ,

[1]

(b) \widehat{DBC} ,

[1]

(c) \widehat{EAB} .

[2]

18. Explain why the size of each of the exterior angles of a regular polygon cannot be 50° .

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