

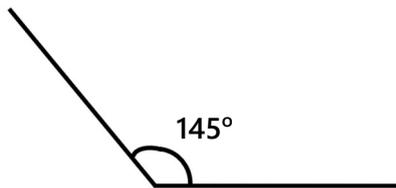
ANGLE FACTS

Task 1 – State whether each angle is acute, right, obtuse, straight, or reflex.

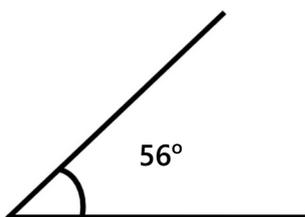
1)



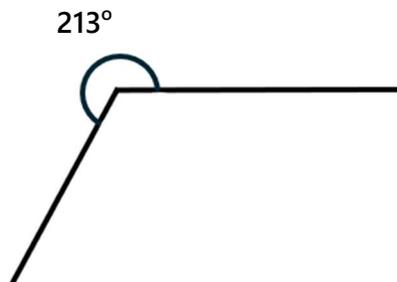
2)



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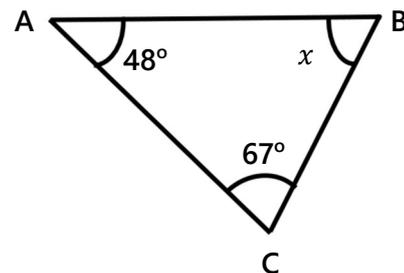


Task 2 – Complete the following sentences.

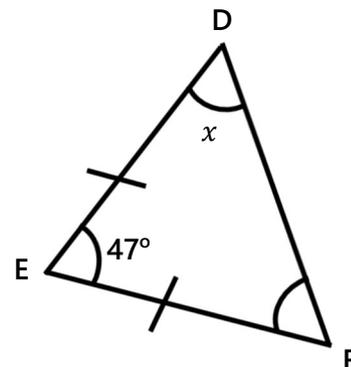
- 5) A right angle is ____.
- 6) Angles on a straight-line sum to ____.
- 7) Angles around a point sum to ____.
- 8) Angles in a triangle sum to ____.
- 9) Angles in a quadrilateral sum to ____.
- 10) An equilateral triangle has three ____ sides and three ____ angles.
- 11) An isosceles triangle has two ____ sides and two ____ angles.

Task 3 – The diagrams in the following questions are not drawn accurately.

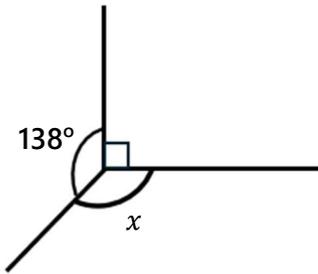
- 12) ABC is a triangle. Work out the size of the missing angle marked x . Give a reason for your answer.



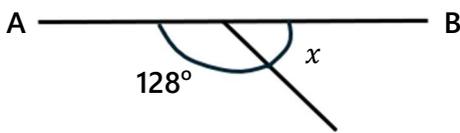
- 13) DEF is an isosceles triangle. Work out the size of the missing angle x .



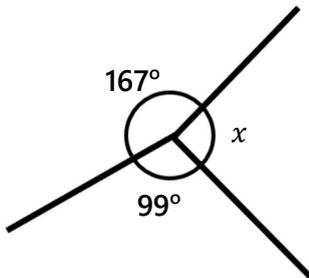
- 14) Work out the size of the missing angle x .
Then, state the type of angle.



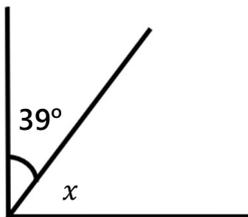
- 15) AB is a straight line. Work out the missing angle x . Give a reason for your answer.



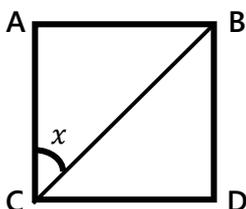
- 16) Work out the size of the missing angle x .
Give a reason for your answer.



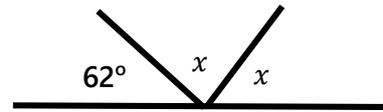
- 17) A right angle is pictured below. Work out the size of the missing angle.



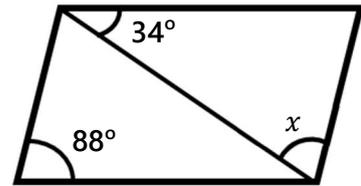
- 18) ABCD is a square. Work out the size of the missing angle x .



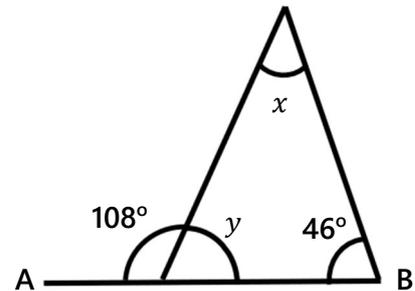
- 19) A straight line is shown below. Work out the size of the angle x .



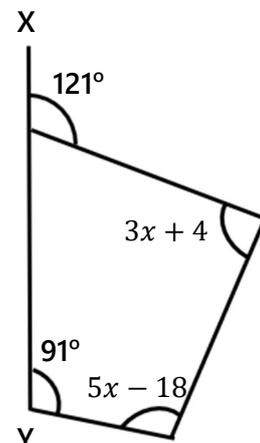
- 20) A parallelogram is pictured below. Work out the size of the missing angle x . Give two reasons for your answer.



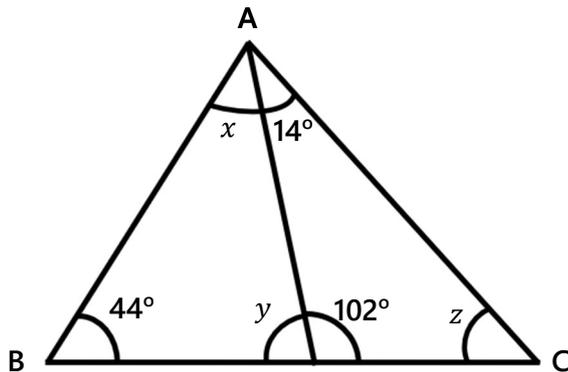
- 21) AB is a straight line. Work out the missing angles x and y . Give a reason for each stage in your working.



- 22) XY is a straight line. Work out the size of x .
Give a reason for each stage in your working.



- 23) Triangle ABC is shown below. Work out the size of the missing angles x , y and z . Give a reason for each stage in your working.



Task 4

- 24) Around a point, there are 5 equal angles. Work out the size of each angle.
- 25) A straight line is split into two angles. One angle is 5 times the size of the other. Work out the size of both angles.
- 26) Four angles around a point are 72° , 108° , 95° , and x° . Work out the size of the angle x .
- 27) The angles in a triangle are in the ratio $1 : 4 : 5$. Work out the size of the largest angle and state the type of angle.
- 28) A straight line is split into three angles. Two are equal, and the third is 60° larger than each of the equal angles. Work out the size of all three angles.
- 29) Three angles on a straight line are as follows:
 $(2x + 10)^\circ$ $(3x - 20)^\circ$ $(x + 40)^\circ$
 Work out the value of x .
- 30) In an isosceles triangle, the two equal angles are each $(x + 20)^\circ$ and the third angle is $(2x - 10)^\circ$. Work out the value of x .

- 31) Angles around a point are as follows:
 $(3x + 15)^\circ$
 $(2x + 10)^\circ$
 $(x + 25)^\circ$
 $(4x - 10)^\circ$

Work out the value of x .

- 32) A quadrilateral has angles in the ratio:
 $2 : 3 : 4 : 6$

Work out the size of all four angles.

Challenge

- 33) A square and three triangles are pictured in the diagram below.

Work out the size of the missing angles. Give a reason for each stage in your working.

