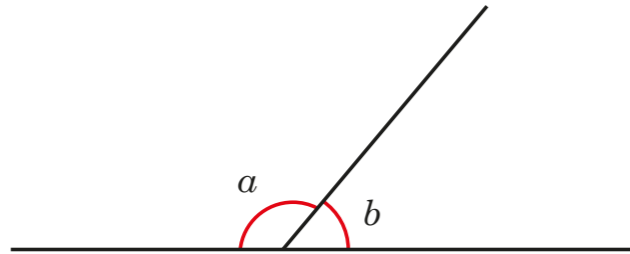


Understand and use the sum of angles on a straight line

1 Two angles, a and b , are adjacent on a straight line.



a) Measure angles a and b .

$a = 130^\circ$

$b = 50^\circ$

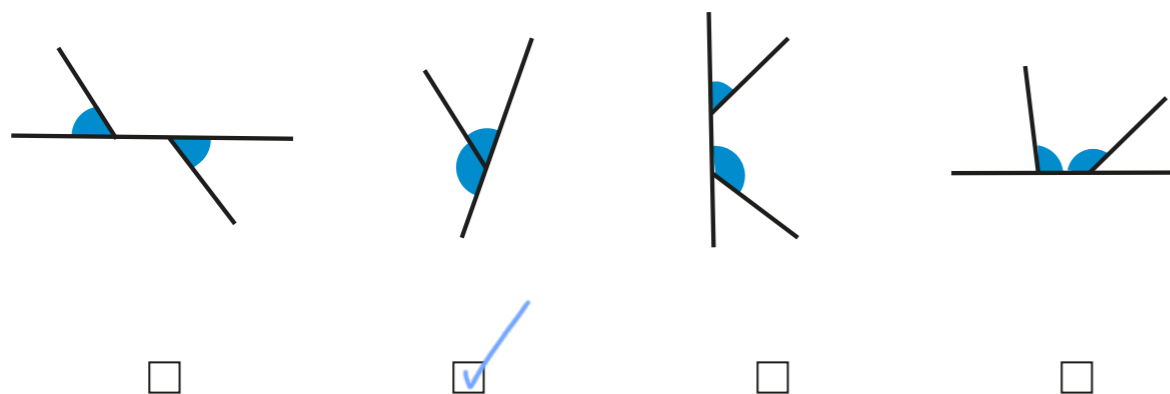
b) What is the total of the two angles?

180°

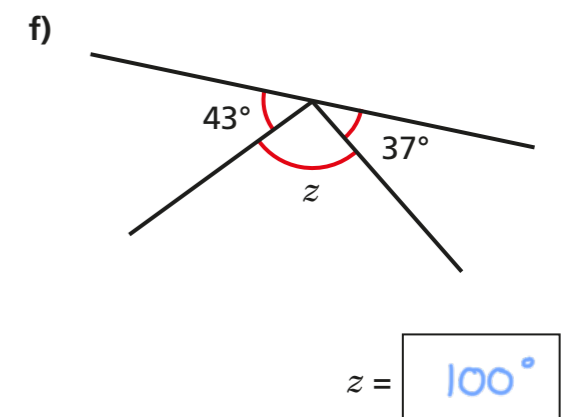
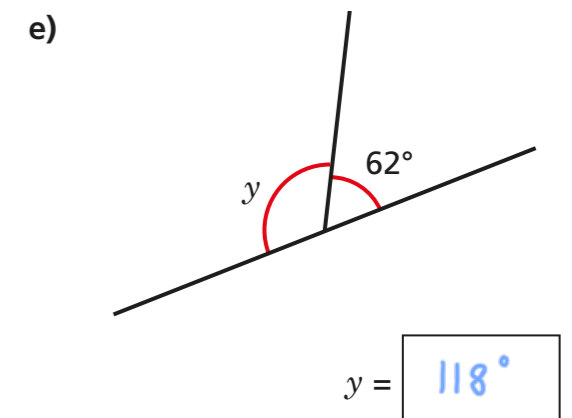
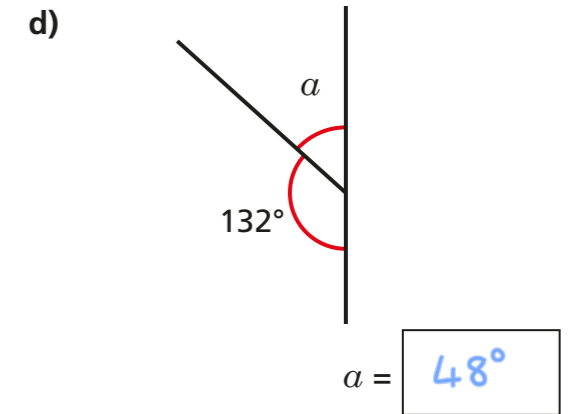
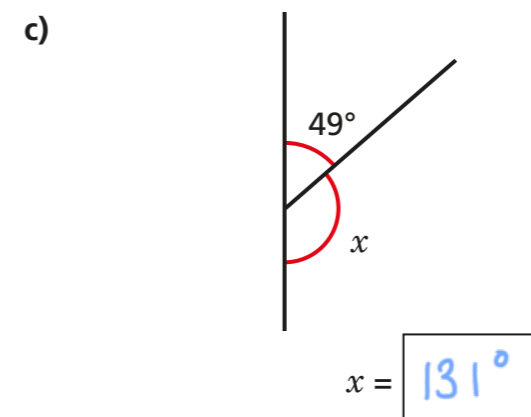
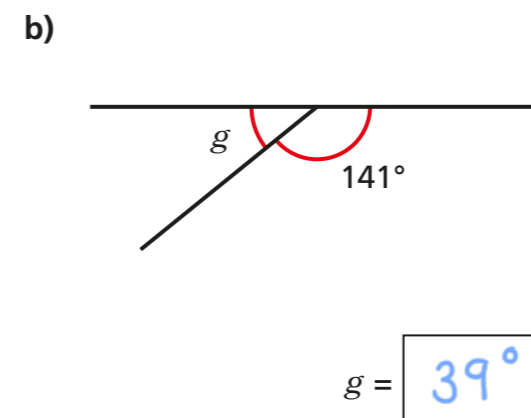
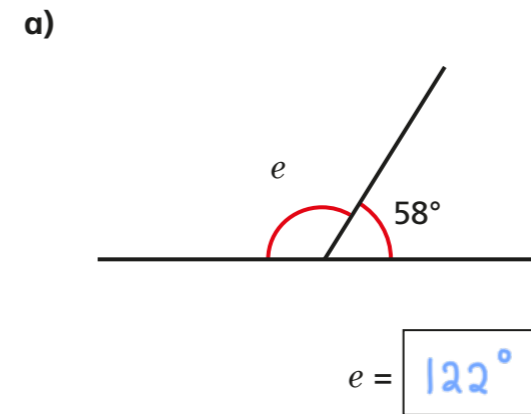
c) Complete the sentence.

Adjacent angles on a straight line sum to 180°

2 Tick the diagram that shows adjacent angles on a straight line.



3 Work out the unknown angles.



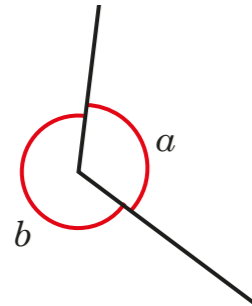
Angle b is 116° because angles on a straight line add up to 180° .

Do you agree with Tommy? No

Explain your answer.

5 Use the information to work out the unknown angles.

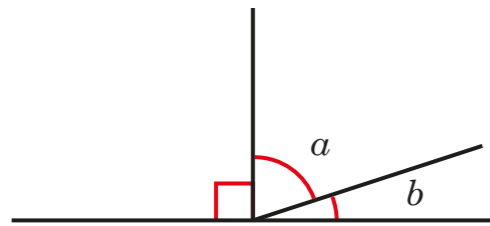
a) Angle a is half the size of angle b .



$$a = 120^\circ$$

$$b = 240^\circ$$

b) Angle a is four times the size of angle b .



$$a = 72^\circ$$

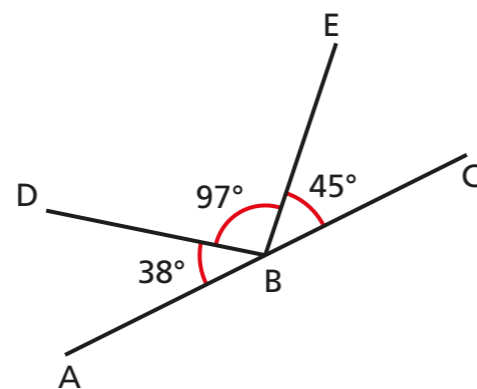
$$b = 18^\circ$$

6 a) Write the size of the given angles.

ABD 38°

EBC 45°

DBE 97°

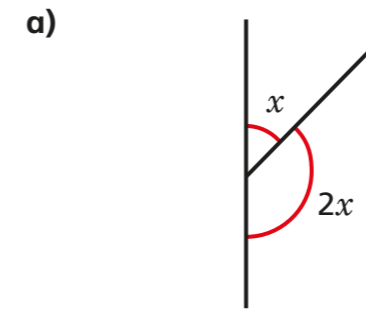


b) Is ABC a straight line? Yes

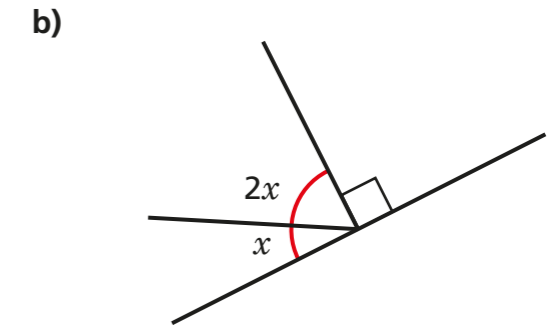
How do you know?



7 Work out the value of x .



$$x = 60^\circ$$



$$x = 30^\circ$$

Compare methods with a partner.

8 AB and CD are straight lines.

Write expressions for the sizes of any missing angles and label them on the diagram.

