

Calculating angles on a straight line



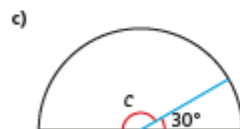
1 Work out the sizes of the unknown angles.



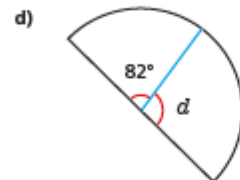
$a = 100^\circ$



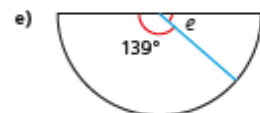
$b = 55^\circ$



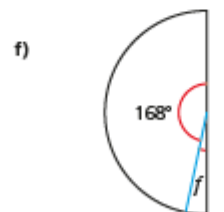
$c = 150^\circ$



$d = 98^\circ$



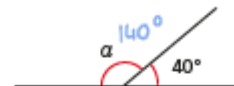
$e = 41^\circ$



$f = 12^\circ$

2 Work out the size of the unknown angles.

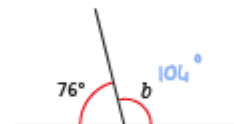
a)



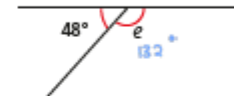
d)



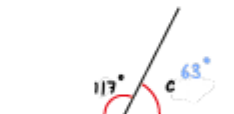
b)



e)



c)



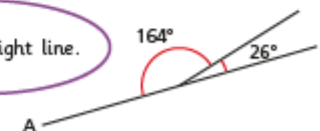
f)



3 Dora draws two angles.



AB is a straight line.



Do you agree with Dora? No

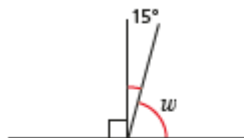
Explain your answer.



- 4 Work out the size of the unknown angles.

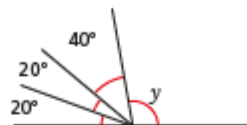
Show the steps in your working.

a)



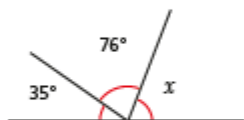
$$w = 75^\circ$$

c)



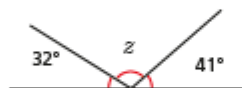
$$y = 100^\circ$$

b)



$$x = 69^\circ$$

d)



$$z = 107^\circ$$

- 5 Work out the sizes of the unknown angles.

a)



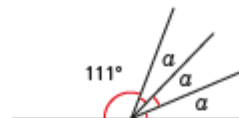
$$k = 45^\circ$$

b)



$$g = 30^\circ$$

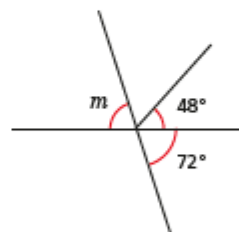
- 6 Work out the size of angle α .



$$\alpha = 23^\circ$$

- 7 Work out the size of angle m .

Show all your working out.

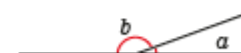


$$m = 72^\circ$$

- 8 Two angles are marked.

Angle b is eight times the size of angle α .

What is the size of each angle?



$$\alpha = 20^\circ \quad b = 160^\circ$$