

Tuesday 30th June 2020

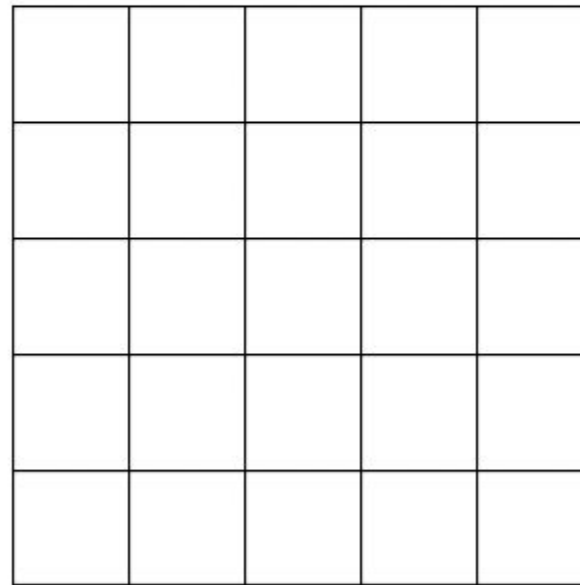
XXX VI MMXX

Hello my amazing mathematicians!

We are going to begin with a maths brain teaser.

Maths Brain Teaser - 3

Using a ruler, draw a 5 x 5 square grid. Fill each square with one of the five symbols so that the same symbol does not appear twice in any horizontal row, vertical row or diagonal row.



I wonder how long this took you to complete. Did you try the challenge with a member of your family?

For the main task we are going to continue to work from the White Rose site. We are going to skip lesson 2 (drawing angles) and move to lesson 3, Calculate angles on a straight line.

Please let the video guide you when tackling the activity.

1. Copy or click on the link (press Ctrl then click) <https://whiterosemaths.com/homelearning/>

Then click Year 5

Summer Term Plans
White Rose Maths in partnership with the BBC Bitesize Daily team has developed a 12-week learning programme for the summer term. This scheme is designed to help children be ready for their next year of school.
[Click here for more details](#)

Hello there, Parents and Carers!
As schools worldwide close for now in response to COVID-19, you might be wondering how best to help your child or children with their studies at home.
Always happy to help, the White Rose Maths Team has prepared a series of five maths lessons for each year group from Year 1-5. We will be adding five more each week for the next few weeks. Every lesson comes with a short video showing you clearly and simply how to help your child to complete the activity successfully.

Home Learning
Summer Term
Easter Fun
Home Learning - Early Years
Home Learning - Year 1
Home Learning - Year 2
Home Learning - Year 3
Home Learning - Year 4
Home Learning - Year 5
Home Learning - Year 6
Home Learning - Year 7
Home Learning - Year 8
Home Learning - Year 9
Home Learning - Year 10


Early Years Year 1 Year 2
Year 3 Year 4 Year 5
Year 6 Year 7 Year 8
Year 9 Year 10 By Topic

← click

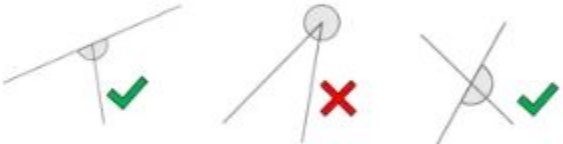
Click




First, watch the video to support your learning and use it to work on the activity sheets below.

Lesson 3 - Calculating angles on a straight line

Have a go 

Are the angles adjacent on a straight line?



 07:43  

Looking for the worksheets? Contact your class teacher to check if they have a subscription to our worksheets. Alternatively, read more here or get some extra resources from BBC Bitesize.

Lesson 4 - Calculating angles around a point

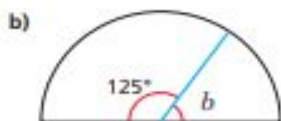
Now complete the worksheets below.

Calculating angles on a straight line

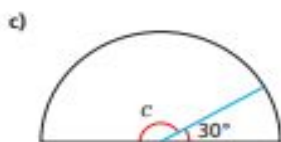
1 Work out the sizes of the unknown angles.



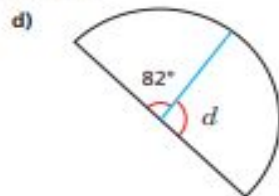
$a = \boxed{}^\circ$



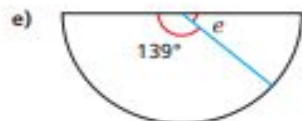
$b = \boxed{}^\circ$



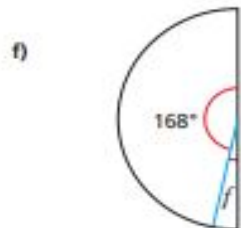
$c = \boxed{}^\circ$



$d = \boxed{}^\circ$

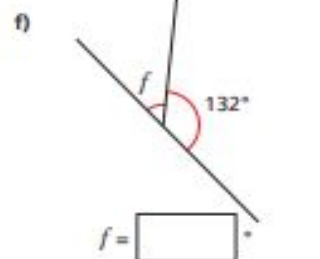
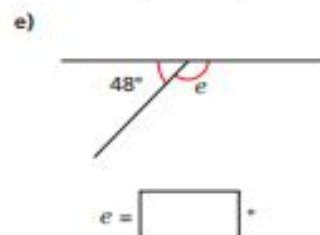
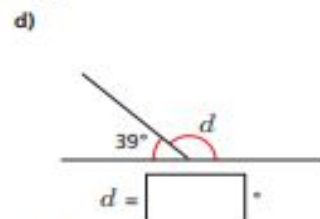
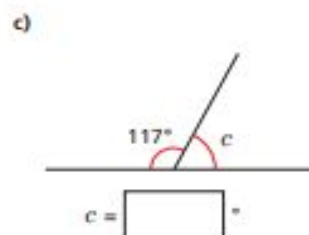
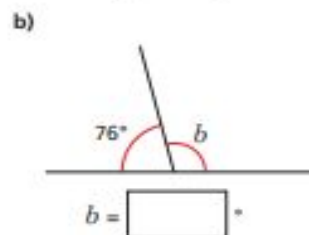
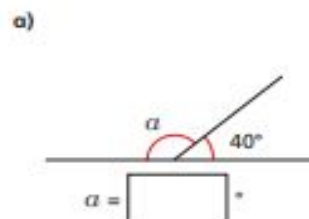


$e = \boxed{}^\circ$

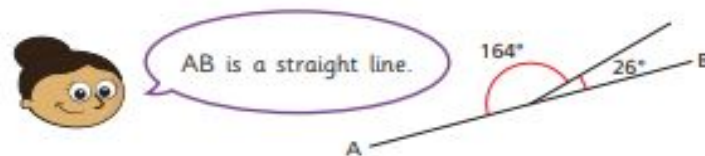


$f = \boxed{}^\circ$

2 Work out the size of the unknown angles.



3 Dora draws two angles.



Do you agree with Dora? _____

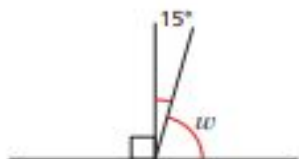
Explain your answer.



- 4 Work out the size of the unknown angles.

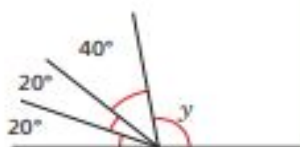
Show the steps in your working.

a)



$$w = \boxed{}^\circ$$

c)



$$y = \boxed{}^\circ$$

b)



$$x = \boxed{}^\circ$$

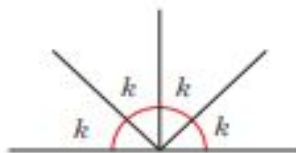
d)



$$z = \boxed{}^\circ$$

- 5 Work out the sizes of the unknown angles.

a)



$$k = \boxed{}^\circ$$

b)



$$g = \boxed{}^\circ$$

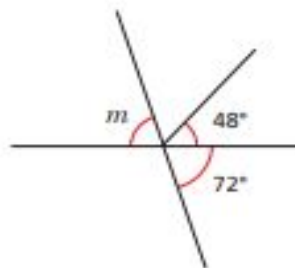
- 6 Work out the size of angle α .



$$\alpha = \boxed{}^\circ$$

- 7 Work out the size of angle m .

Show all your working out.



$$m = \boxed{}^\circ$$

- 8 Two angles are marked.

Angle b is eight times the size of angle α .

What is the size of each angle?



$$\alpha = \boxed{}^\circ \quad b = \boxed{}^\circ$$

Answers

Calculating angles on a straight line



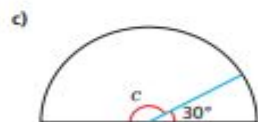
1 Work out the sizes of the unknown angles.



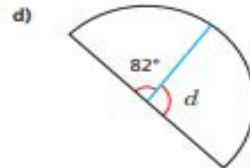
$a = 100^\circ$



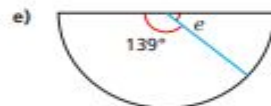
$b = 55^\circ$



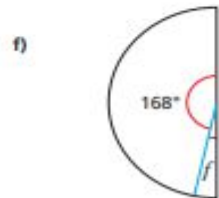
$c = 150^\circ$



$d = 98^\circ$

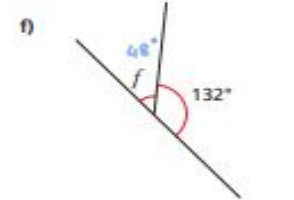
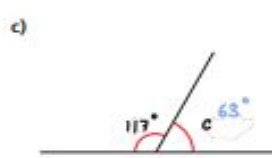
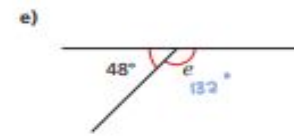
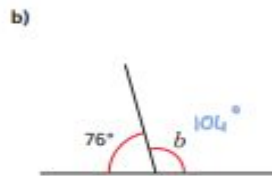
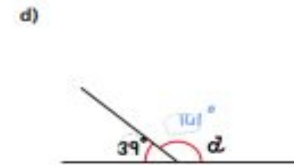
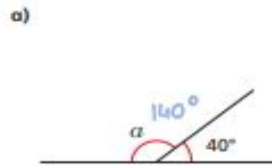


$e = 41^\circ$



$f = 12^\circ$

2 Work out the size of the unknown angles.



3 Dora draws two angles.



AB is a straight line.



Do you agree with Dora? No

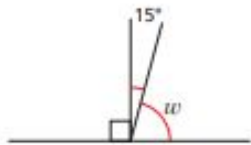
Explain your answer.



4 Work out the size of the unknown angles.

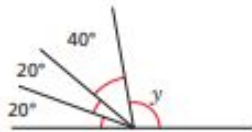
Show the steps in your working.

a)



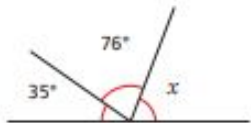
$$w = \boxed{75}^\circ$$

c)



$$y = \boxed{100}^\circ$$

b)



$$x = \boxed{69}^\circ$$

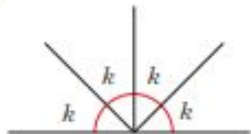
d)



$$z = \boxed{107}^\circ$$

5 Work out the sizes of the unknown angles.

a)



$$k = \boxed{45}^\circ$$

b)



$$g = \boxed{30}^\circ$$

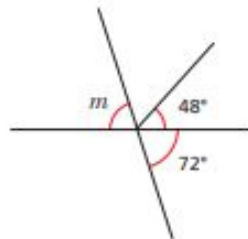
6 Work out the size of angle α .



$$\alpha = \boxed{23}^\circ$$

7 Work out the size of angle m .

Show all your working out.



$$m = \boxed{72}^\circ$$

8 Two angles are marked.

Angle b is eight times the size of angle α .

What is the size of each angle?



$$\alpha = \boxed{20}^\circ \quad b = \boxed{160}^\circ$$

Challenge answer

3. There are a number of different solutions - one is shown here.

■	★	◆	●	▲
●	▲	■	★	◆
★	◆	●	▲	■
▲	■	★	◆	●
◆	●	▲	■	★