



Monday 13th July

LO: to calculate vertically opposite angles.

Something we learnt previously:

In a Maths test, Tommy answered 62% of the questions correctly.

Rosie answered $\frac{3}{5}$ of the questions correctly.

Who answered more questions correctly?

Explain your answer.

Something we learnt last unit:

There are some red and green cubes in a bag.
 $\frac{2}{5}$ of the cubes are red.

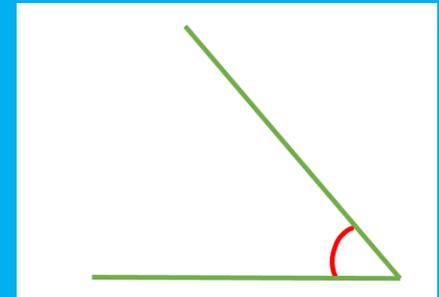
True or False?

- For every 2 red cubes there are 5 green cubes.
- For every 2 red cubes there are 3 green cubes.
- For every 3 green cubes there are 2 red cubes.
- For every 3 green cubes there are 5 red cubes.

Explain your answers.

Something we are learning now:

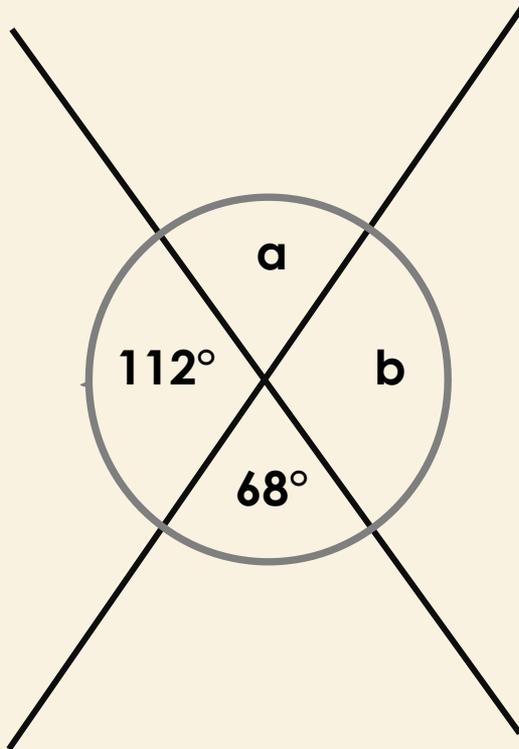
Alex measures this angle:



She says it is 130°

Explain what she has done wrong.

I do: Calculate the missing angles.



a =

b =

Vertically opposite angles are always the same – so in this case angle a would be the same as 68°

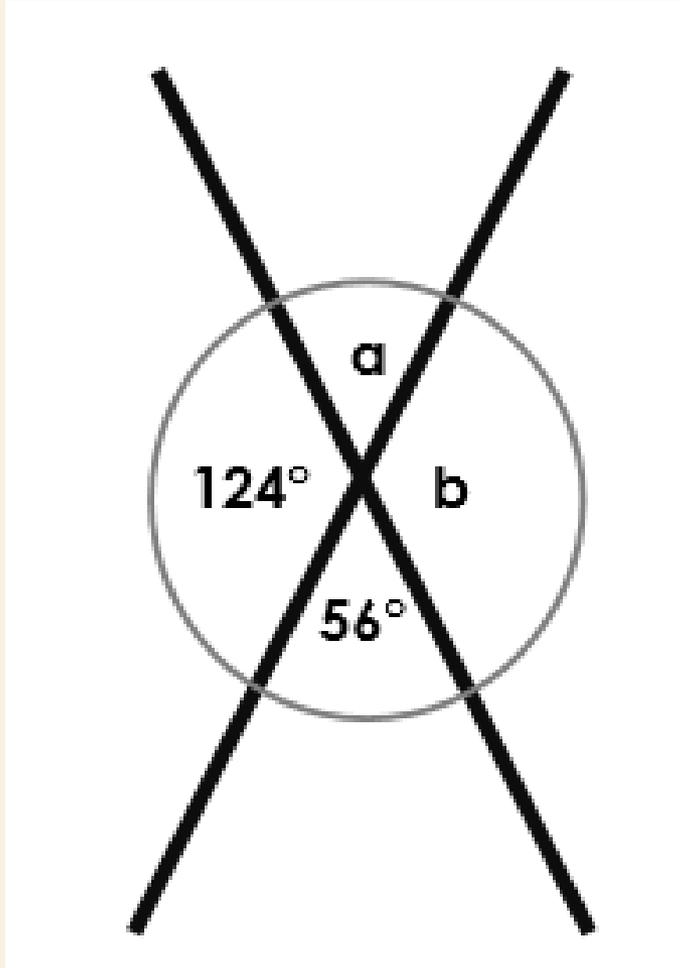
And angle b would be the same as 112° .

Because we know that two angles on a straight line add up to 180° we could check this.

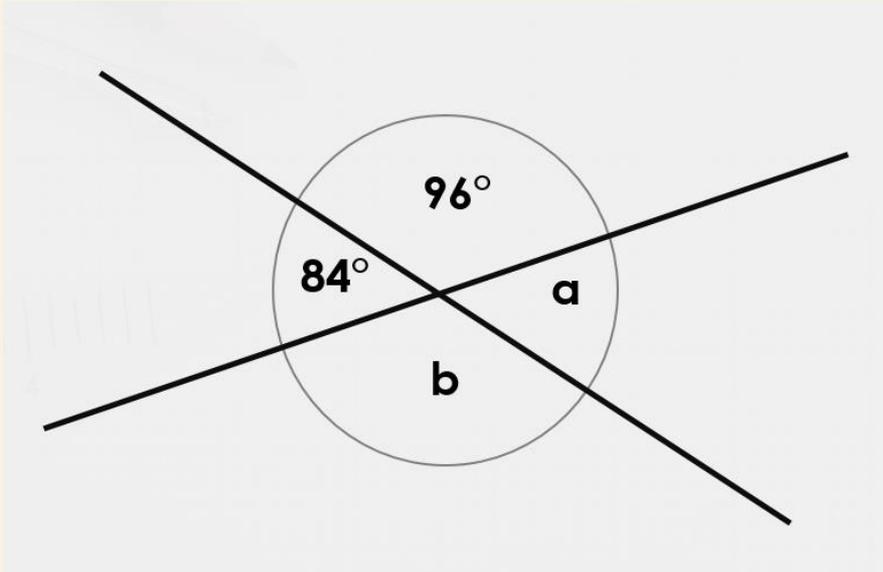
So for angle a $112 + \underline{\quad\quad} = 180$

Angle b $68 + \underline{\quad\quad\quad} = 180$

You do: Calculate the missing angles



I do: Complete this statement...



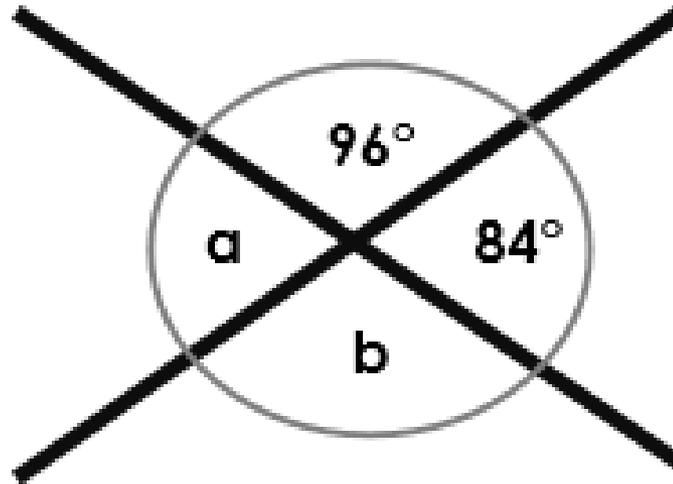
$$a + b =$$

$$180^\circ$$

I know that two angles on a straight line must add up to 180°

I can see that angles a and b are on a straight line.

You do: Complete this statement...



$$96^\circ + 84^\circ + a + b =$$

Independent task:

Use what you have learned to answer the questions on your worksheet.

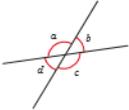
Where it asks you to compare with a partner, you don't need to do that (however you could discuss with an adult).

If you get stuck, go back and look at the examples from the I do, you do section again to help you.



Vertically opposite angles

1 The diagram shows four angles formed by two straight lines.



a) Measure the sizes of the angles.
 $a = \square$ $b = \square$ $c = \square$ $d = \square$

b) What is the total of angles a and b ? \square
 Explain why. _____

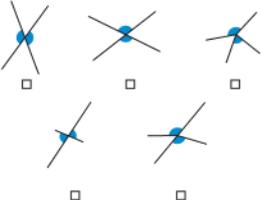
Do any other pairs of angles have this same total? _____

c) Angles a and c are vertically opposite angles.
 What do you notice about the sizes of angles a and c ? _____

d) Angles b and d are also vertically opposite angles.
 What do you notice about the sizes of angles b and d ? _____

e) Complete the sentence.
 Vertically opposite angles _____

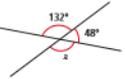
2 Tick the pairs of angles that are vertically opposite.



Compare answers with a partner.

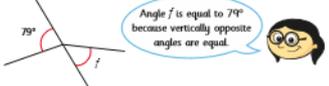
3 Work out the sizes of the unknown angles. Give reasons for your answers.

a)  $y = \square$ because _____

b)  $x = \square$ because _____

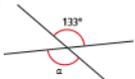
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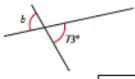
4 Annie is working out the size of angle f .

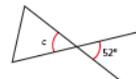


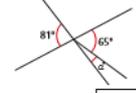
Do you agree with Annie? _____
 Explain your answer. _____

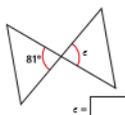
5 Work out the unknown angles.

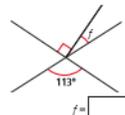
a)  $a = \square$

b)  $b = \square$

c)  $c = \square$

d)  $d = \square$

a)  $c = \square$

b)  $f = \square$

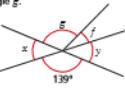
Talk about your reasons with a partner.

6 Angle b is three times the size of angle a .



Work out the sizes of angles a and b .
 $a = \square$ $b = \square$

7 Angle f is one quarter of the size of angle g .
 Angle f is 28° .

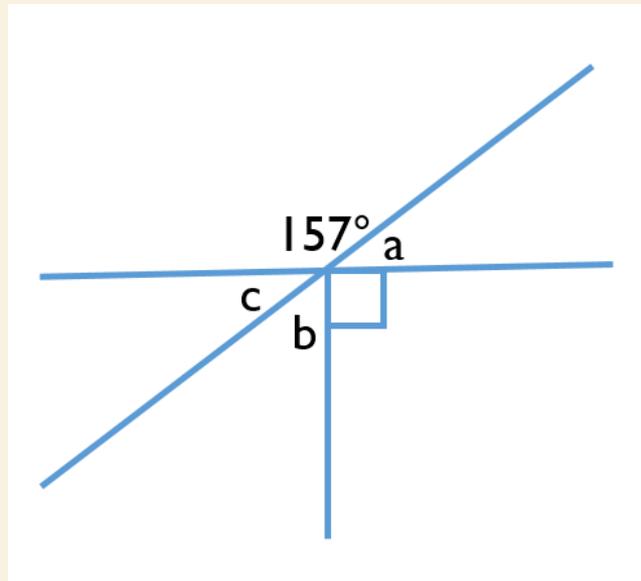


Are angles x and y vertically opposite? _____
 Explain your answer. _____

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Plenary:

The diagram below is drawn using three straight lines.



Whitney says that it's not possible to calculate all of the missing angles.

Do you agree? Explain why.

Maths meeting:

YEAR 6

Week 6 - Monday

Rounding Whole Numbers

1.) **328**

to the nearest
10

2.) **3,590**

to the nearest
100

3.) **7,155**

to the nearest
1,000

4.) **4,035**

to the nearest
10

Back to Basics

5.)
$$\frac{14082}{6} =$$

6.) $354 \times 17 =$

7.) $6,088 + 4,309 =$

8.) $5,985 - 1,988 =$