

- 1) Match the answer to complete the sentence:



A straight line is made up of \_\_\_\_\_ right angles.

A right angle is \_\_\_\_\_ degrees.

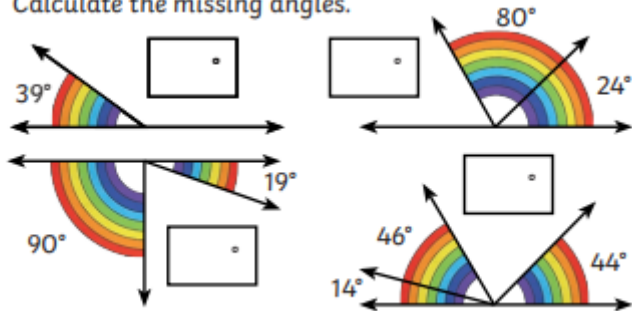
A straight line is \_\_\_\_\_ degrees.

180

90

2

- 2) Calculate the missing angles.



- 1) Jen says, "If I turn from 2 o'clock to 8 o'clock, this is a half turn - 180°".



Is Jen correct? Prove it!

What other turns can you identify on a clock face that would be the same value of 180°?

- 2) Floria is describing angles on a straight line for her friend to draw. She says one of the angles is 32°, another is a right angle and the final angle is 68°. Is Floria correct? Prove it!

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- 1) A straight line is made up of **2** right angles.

A right angle is **90** degrees.

A straight line is **180** degrees.

- 2) a) **141°**

b) **76°**

c) **71°**

d) **76°**

- 1) **True. 15 minutes is a right angle and therefore 30 minutes is two right angles - 180 degrees. Jen has turned half a turn.**

**Accept any correct answer, for example - 3 o'clock to 9 o'clock / 4 o'clock to 10 o'clock / 5 o'clock to 11 o'clock / 12 o'clock to 6 o'clock / 1 o'clock to 7 o'clock.**

- 2) **False. The sum of the angles given by Floria is 140° and angles on a straight line add to make 180°.**

Calculate the missing angles on this picture and explain how you worked them out.



$a = \underline{\hspace{2cm}}^\circ$ .

I know this because ...

$b = \underline{\hspace{2cm}}^\circ$ .

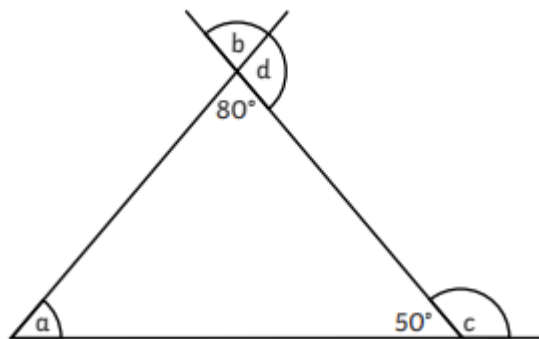
I know this because ...

$c = \underline{\hspace{2cm}}^\circ$ .

I know this because ...

$d = \underline{\hspace{2cm}}^\circ$ .

I know this because ...



1)  $a = 50^\circ$ . I know this because *the sum of the angles in a triangle is  $180^\circ$ .  $80 + 50 = 130$  so the missing angle must be  $50^\circ$ .*



$b = 80^\circ$ . I know this because  *$d$  has a value of  $100^\circ$ , so  $b$  must have a value of  $80^\circ$  as angles on a straight line have sum of  $180^\circ$ . (Children may also know that opposite angles are equal and therefore if we know the vertex of the triangle is  $80^\circ$ ,  $b$  must also be  $80^\circ$ .)*

$c = 130^\circ$ . I know this because *the other angle on the line is  $50^\circ$  so  $c$  must have a value of  $130^\circ$  as angles on a straight line have sum of  $180^\circ$ .*

$d = 100^\circ$ . I know this because *there is a straight line and one angle is  $80^\circ$ , so this must be  $100^\circ$  as angles on a straight line have a sum of  $180^\circ$ .*