

To be able to explore angle facts and real-world uses of angles



Starter:

Which one doesn't belong?



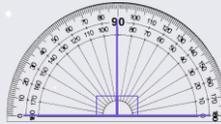
Explain your answer.

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Activity 1:

Look at the representation below, then complete the accompanying sentences.



The value of a right angle is ___°.

There are ___ right angles in a straight line.

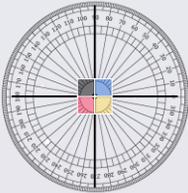
The value of a straight line is ___°.

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Activity 2:

Look at the representation below, then complete the accompanying sentences.



The value of a right angle is ___°.

There are ___ right angles in a full turn.

The value of a full turn is ___°.

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Activity 3:

Complete the table below.

angle	degrees	fraction of a full turn
full turn		$\frac{4}{4}$ of a full turn
three right angles		
straight line		
right angle	90°	

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Activity 4:

(ex.) There are 180° between North and South turning anti-clockwise.

- Use an analogue clock face to identify how many degrees there are between:
 - 12 o'clock and 6 o'clock (turning clockwise)
 - 12 o'clock and 9 o'clock (going clockwise)
 - 6 o'clock and 9 o'clock (turning anti-clockwise)
- Use a compass to identify how many degrees there are between:
 - East & West (going clockwise)
 - South & East (going anti-clockwise)
 - North-East and South-West (going clockwise)



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Activity 5:

If it takes 60 minutes for the minute hand to travel all the way around the clock, how many degrees does the minute hand travel in:

- 7 minutes?
- 12 minutes?
- 17 minutes?
- 21 minutes?
- 37 minutes?
- 53 minutes?

How many minutes have passed if the minute hand has moved:

- 162°?
- 258°?



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Activity 6:

Are the following statements always, sometimes or never true?

- a) There are 90° between 12 o'clock and 3 o'clock.
- b) There are 180° between East and West.
- c) There are 90° between 6 o'clock and 12 o'clock.

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Evaluation:



Bumble said that
there are 270°
between North-West
and South-West.
I think there are 90° .

Who do you agree with?
Explain your answer.