03.06.20

WALT interpret right angles

Mathematical Talk

If there are 90 degrees in one right angle, how many are there in two? What about three?

How many degrees are there in a quarter/half turn?

Between which two compass points can you see a right angle/half turn/three quarter turn?

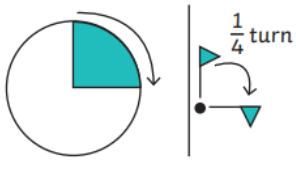
Properties of Shapes Recognising Turns

A turn is to rotate about a point.

A turn can be described as a quarter-turn, half-turn, three-quarter turn or a complete turn.

A turn can be completed clockwise and anticlockwise.

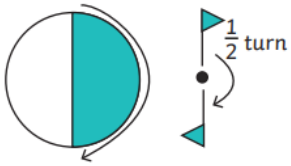
Clockwise



1 right angle

quarter-turn clockwise

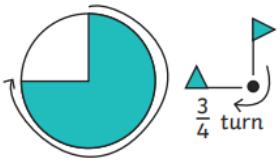
90°



2 right angles

half-turn clockwise

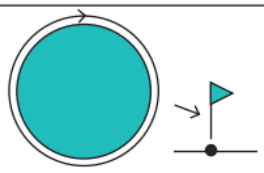
180°



3 right angles

three-quarter turn clockwise

270°

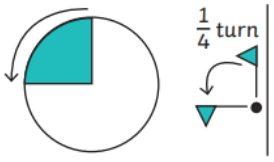


4 right angles

complete turn clockwise

360°

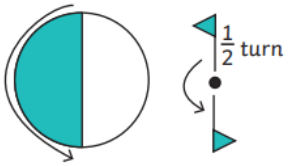
Anticlockwise



1 right angle

quarter-turn anticlockwise

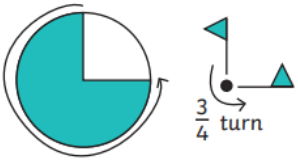
90°



2 right angles

half-turn anticlockwise

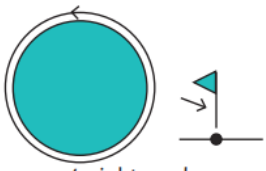
180°



3 right angles

three-quarter turn anticlockwise

270°

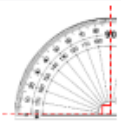


4 right angles

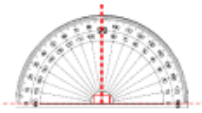
complete turn anticlockwise

360°

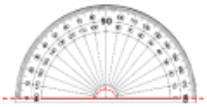
Varied Fluency



There are ☐ degrees in a right angle.



There are ☐ right angles on a straight line.



There are ☐ degrees on a straight line.

Complete the table.

Angle	Fraction of a full turn	Degrees
Right angle	$\frac{1}{4}$	90°
Straight line		
Three right angles		
Full turn		

Use a compass to identify how many degrees there are between:

- North & South (turning clockwise)
- South & East (turning anti-clockwise)
- North-East and South-West (turning clockwise)

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Dora and Eva are asked how many degrees there are between North-West and South-West.

Dora says,

There are 90 degrees between NW and SW.

Eva says,

There are 270° between NW and SW

Who do you agree with?
Explain why.

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

How many minutes have passed if the minute hand has moved 162°?

Always, sometimes, never.

W to S = 90 degrees
NE to SW = 180 degrees
E to SE in a clockwise direction > 90°