

08.02.21

L.O. I can identify right angles and multiples of  $90^\circ$



# Math WARM UPS



Level 1

Level 2

Level 3

Level 4

Level 5

Level 6

## Daily 10

Mental Maths Challenge



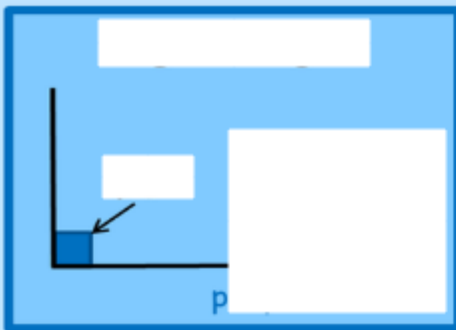
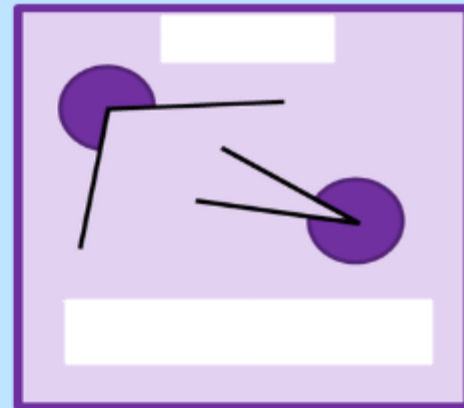
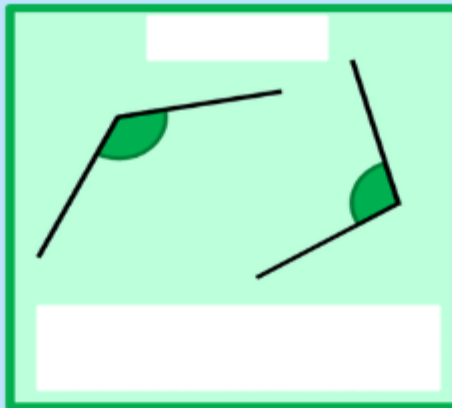
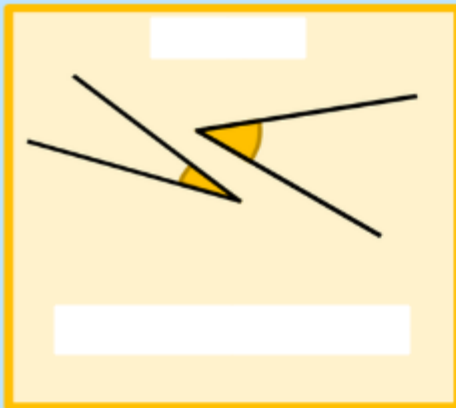
Topmarks

What is an angle?

# What are the different types of angles?

## Types of angle

Angles are named or classified according to their size.

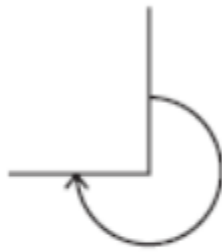


### Check your units!

Angles are usually measured in degrees, with  $360^\circ$  making a full turn. This is different to degrees Celsius, which measures temperature.



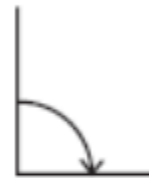
1 turn



$\frac{3}{4}$  turn



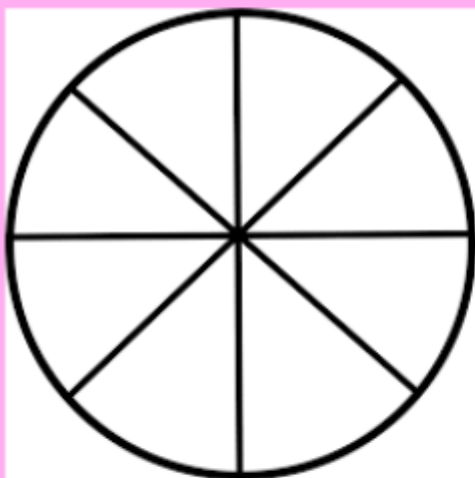
$\frac{1}{2}$  turn



$\frac{1}{4}$  turn



Copy into books (remember to use this throughout the week to help you!)



Measure of a turn	Angle
$\frac{1}{8}$	
$\frac{1}{4}$	
$\frac{3}{8}$	
$\frac{1}{2}$	
$\frac{5}{8}$	
$\frac{3}{4}$	
$\frac{7}{8}$	
1 whole	

How many degrees has the minute hand moved if it started at 12?



How many degrees will I move through if I turn from NW to N anti-clockwise?





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L.O. I can identify right angles and multiples of 90.

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**Choose where you would like to start. Make sure you clearly identify which question is which please, so Section A Q 4 would be A4 and then if the next was Section C Question 8 it would be C8.**

**Thank you.**

**TARGET** To identify right angles and other multiples of  $90^\circ$

A quarter turn is  $90^\circ$ .  
A half turn is  $180^\circ$ .

A three quarter  
turn is  $270^\circ$ .



A whole turn  
is  $360^\circ$ .



**A**

Find the new time if the  
hour hand of a clock  
turns:

- 1  $90^\circ$  from 9 o'clock
- 2  $180^\circ$  from 3 o'clock
- 3  $360^\circ$  from 12 o'clock
- 4  $90^\circ$  from 3 o'clock
- 5  $180^\circ$  from 6 o'clock
- 6  $90^\circ$  from 12 o'clock
- 7  $360^\circ$  from 6 o'clock
- 8  $180^\circ$  from 9 o'clock

How many degrees is the  
turn clockwise from:

- 9 S to W
- 10 W to E
- 11 E to S
- 12 N to S
- 13 W to N
- 14 S to N
- 15 N to E
- 16 E to W?

How many degrees is the  
turn anti-clockwise from:

- 17 W to S
- 18 N to S
- 19 E to W
- 20 S to E
- 21 N to W
- 22 S to N
- 23 E to N
- 24 W to E?

**B**

Find the new time if the  
hour hand of a clock turns:

- 1  $180^\circ$  from 8 am
- 2  $90^\circ$  from 1 pm
- 3  $360^\circ$  from 6 pm
- 4  $270^\circ$  from 5 am
- 5  $180^\circ$  from 10 pm
- 6  $90^\circ$  from 3 pm
- 7  $360^\circ$  from 2 am
- 8  $270^\circ$  from 11 am.

How many degrees is the  
turn clockwise from:

- 9 S to W
- 10 NE to SW
- 11 W to S
- 12 SE to SE
- 13 E to S
- 14 SE to NE
- 15 N to S
- 16 SW to NW?

How many degrees is the  
turn anti-clockwise from:

- 17 E to N
- 18 NE to SW
- 19 W to N
- 20 N to N
- 21 SE to SW
- 22 NW to SW
- 23 S to E
- 24 SW to NE?

**C**

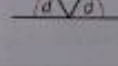
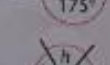
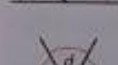
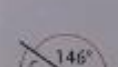
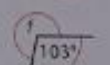
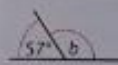
How many degrees does the  
minute hand turn in:

- 1 15 minutes
- 2 5 minutes
- 3 55 minutes
- 4 10 minutes
- 5 45 minutes
- 6 20 minutes
- 7 60 minutes
- 8 35 minutes?

How many degrees is the turn  
clockwise from:

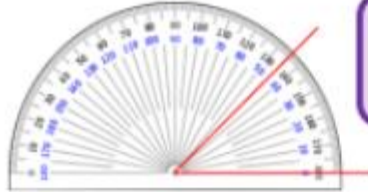
- 9 W to NW
- 10 S to SE
- 11 SW to N
- 12 NE to W
- 13 E to SW
- 14 NE to E
- 15 NW to S
- 16 N to NW?

17 Calculate the missing angles  
a-h.



## Class challenge!

Three children are measuring angles. Can you spot and explain their mistake?



My angle measures  $135^\circ$

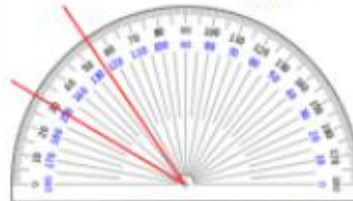


Mo

My angle measures  $55^\circ$



Dora



My angle measures  $35^\circ$



Alex

