Introduce angles

1 Match each angle to its picture and number of right angles.

90°		1 right angle
180°		4 right angles
270°		3 right angles
360°		2 right angles

2 Complete the sentences.

There is ☐1☐ right angle in a quarter turn.

A quarter turn is ☐90☐ degrees.

There are ☐2☐ right angles in a half turn.

A half turn is ☐180☐ degrees.

There are ☐3☐ right angles in a three-quarter turn.

A three-quarter turn is ☐270☐ degrees.

There are ☐4☐ right angles in a full turn.

A full turn is ☐360☐ degrees.

3 **a)** Jack is facing the direction that the arrow is pointing.

Jack

He turns a half turn.

Draw on the diagram to show the direction he is now facing and the angle he turned through.

How many degrees did he turn through? ☐180☐

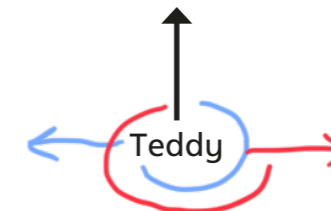**b)** Dora is facing the direction that the arrow is pointing.

Dora

She turns a quarter turn clockwise.

Draw on the diagram to show the direction she is now facing and the angle she turned through.

How many degrees did she turn through? ☐90☐

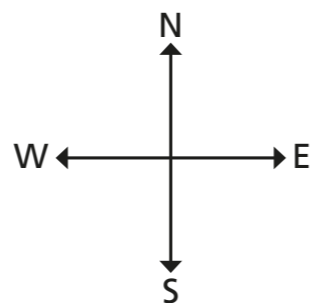**c)** Teddy is facing the direction that the arrow is pointing.

Teddy

He turns a three-quarter turn.

Draw on the diagram to show the two directions he could now be facing and the angles he could have turned through.

How many degrees did Teddy turn through? ☐270☐

4 Here is a compass.

N
W ←——→ E
S

a) Huan is facing north.

He turns half a turn.

What direction is he facing now? _____South_____

b) Whitney is facing east.

She turns 180°.

What direction is she facing now? _____west_____

c) Alex is facing west.

She turns a quarter turn clockwise.

What direction is she facing now? _____north_____
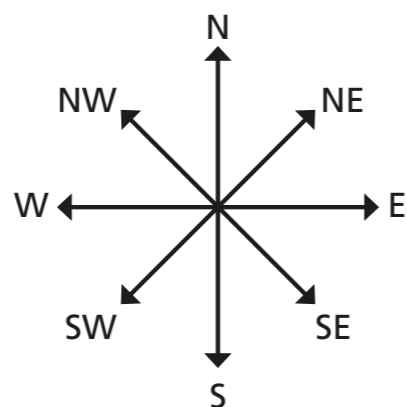
d) Amir is facing west.

He turns 90° anticlockwise.

What direction is he facing now? _____south_____

e) Kim is facing south.

What angle does she need to turn through to face east?

_____90°_____ _anti-clockwise_ or _270°_ _clockwise_

Is there more than one answer?

5 Here is another compass.

N
NW   NE
W ←——→ E
SW   SE
S

a) Dexter is facing north-east.

He turns half a turn.

What direction is he facing now? _____south - west_____

b) Esther is facing south-west.

She turns 270° anticlockwise.

What direction is she facing now? _____north-west_____

c) Mo is facing south-west.

He turns, and he is still facing south-west.

How many degrees did he turn through? 360°

6 Complete the statements.

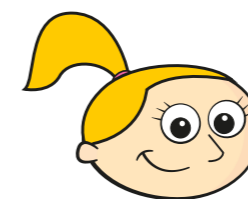a) $\frac{1}{2}$ of a full turn = 180°

b) $\frac{1}{4}$ of a full turn = 90°

c) $\frac{3}{4}$ of a full turn = 270°

d) $1\frac{1}{4}$ turns = 450°

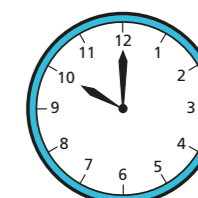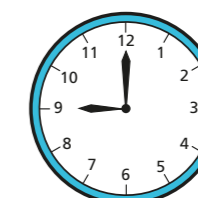e) $5\frac{3}{4}$ turns = 2,070°

7

I did $2\frac{1}{3}$ turns.

How many degrees did Eva turn through?

840°

8 Nijah looks at the clock at the start and at the end of her maths lesson.

start **end**

How many degrees did the minute hand turn through during the lesson?

360°