## Understand angles as a measure of turn

Whitney is facing in the direction of the arrow. She turns through half a turn.


Show the direction that Whitney is now facing
2) Teddy is facing in the direction of the arrow.

He turns through half a turn.

a) Show the direction that Teddy is now facing.
b) Mark the angle that Teddy has turned through.
c) What angle has Teddy turned through?

3 The diagram shows a compass and the direction of some places. Kim, Jack, Annie and Mo are all standing at point A.

a) Kim is facing the church.

She turns through a quarter of a turn clockwise.
Which place is she now facing?
b) Jack is facing the cinema.

He turns through a quarter of a turn.
Which two places could he be facing?
$\qquad$ or $\qquad$
c) Annie is facing the restaurant.

Complete the sentence.

She makes a $\qquad$ and she is facing the supermarket.
d) Mo is facing the coffee shop.

He makes a three-quarter turn clockwise.
Where is he now facing?

Amir is facing C.
He turns to face E .


What two possible turns could Amir have made?
Describe each turn.
a) Complete the sentences.
1 full turn is equal to $\square$
2 full turns are equal to $\square$ full turns are equal to $\square$
$\frac{1}{2}$ of a full turn is equal to $\square$
$\frac{1}{4}$ of a full turn is equal to $\square$
$\frac{3}{4}$ of a full turn is equal to $\square$.
b) How many degrees are equal to $2 \frac{3}{4}$ full turns?

c) How many degrees are equal to $1 \frac{1}{3}$ full turns?

The diagram shows compass points.

a) A ship is heading north.

It turns through $90^{\circ}$ clockwise.
Which direction is the ship now facing? $\qquad$
b) Another ship is heading SE.

It turns through $90^{\circ}$ clockwise.
Which direction is this ship now facing?
c) A final ship is heading NW.

The ship turns anticlockwise to face NE.
How many degrees has the ship turned through? $\square$

Filip is facing A.
He makes ten equal-sized turns.

He finishes facing A.


How many degrees did he turn through to face $G$ ?
$\square$

