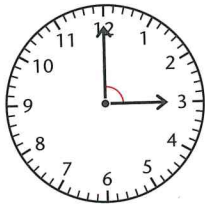
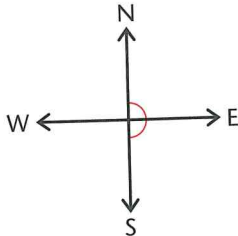


**TARGET** To recognise half turns, three quarter turns and whole turns as numbers of right angles.

$\frac{1}{4}$  turn  
right angle



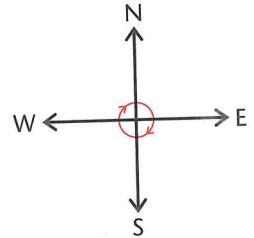
half turn  
2 right angles



three quarters turn  
3 right angles



whole turn  
4 right angles



## A

Find the new time if the hour hand makes a  $\frac{1}{2}$  turn or turns a right angle

- |              |              |
|--------------|--------------|
| 1 from 12:00 | 5 from 3:00  |
| 2 from 3:00  | 6 from 9:00  |
| 3 from 9:00  | 7 from 6:00  |
| 4 from 6:00  | 8 from 12:00 |

Are these compass movements half turns or right angles?

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

## B

In which direction would you be facing?

Make a  $\frac{1}{4}$  turn:

- 1 right from E
- 2 left from N
- 3 right from S
- 4 left from W
- 5 right from N
- 6 left from S

Make a  $\frac{3}{4}$  turn:

- 7 left from N
- 8 right from E
- 9 left from S
- 10 right from N
- 11 left from W
- 12 right from W

Find the new time. The hour hand turns:

- 13 a half turn from 10 o'clock
- 14 a whole turn from 2 o'clock
- 15 a 3 quarters turn from 8 o'clock
- 16 a quarter turn from 11 o'clock
- 17 a half turn from 1 o'clock
- 18 a 3 quarters turn from 4 o'clock.

## C

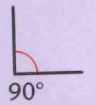


360°

Angles are measured in degrees (°).

A whole turn is 360°.

A right angle is 90°.



90°

Find the new time. The hour hand turns:

- |                |              |
|----------------|--------------|
| 1 180° from 5  | 5 90° from 2 |
| 2 270° from 11 | 6 30° from 2 |
| 3 360° from 7  | 7 90° from 7 |
| 4 180° from 8  | 8 60° from 7 |

How many degrees is the clockwise turn from:

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

