

## Measuring Angles in Degrees

### Reasoning and Problem Solving

Which angle is the odd one out?

Could another angle be the odd one out for a different reason?

**Always, sometimes or never true?**

- If I turn from North-East to North-West, I have turned  $90^\circ$
- If I turn from East to North-West, I will have turned through an obtuse angle.
- If I turn from South-West to South, my turn will be larger than  $350^\circ$

Multiple responses  
e.g.  $79^\circ$  is the odd one out because the others are multiples of 45 degrees; 270 degrees is the only reflex angle etc.

All are sometimes true, depending on whether you turn clockwise or anti-clockwise or even more than one turn.

Pick a starting point on the compass and describe a turn to your partner. Use the mathematical words to describe your turns:

- Clockwise
- Anti-clockwise
- Degrees
- Acute
- Obtuse
- Reflex
- Right angle

Can your partner identify where you will finish?

Lots of possibilities.  
Children can be challenged further e.g. I turn three right angles. I start at North-West and turn clockwise, where do I finish?