Measuring Angles in Degrees
Aim

- Know angles are measured in degrees; estimate and compare acute, obtuse and reflex angles.
What type of angle is shown in each biscuit picture?

Estimate the size of each angle.

Remember to use what you already know about angle properties.

reflex 230°

acute 45°

obtuse 120°
Estimate the angles and then order from smallest to greatest.

- **Acute**: 60°
- **Obtuse**: 135°
- **Reflex**: 270°, 310°
Use the greater than, less than and equals symbols to complete these statements.

- a quarter turn $\leq$
- $\frac{5}{8}$ of a turn $=$
- $\frac{3}{4}$ of a turn $> \leq$ a right angle
If I turn in a clockwise direction from north to north-west, my turn is an acute angle.

Is Sam correct? Explain your answer.

Sam is incorrect. If you turn clockwise from north to north-west, this is nearly a full turn. It is 315°.

If Sam had turned anticlockwise, this would have been an acute angle of 45°.
True or False?

⅜ of a whole turn is less than a right angle.

False. ⅜ of a whole turn is 135° and a right angle is 90°.
True or False?

⅓ of a whole turn is less than \(\frac{5}{12}\) of a turn.

True. ⅓ of a whole turn is 120° and \(\frac{5}{12}\) of a turn is 150°. An alternative way of answering this is to use our equivalent fractions knowledge to convert ⅓ to \(\frac{4}{12}\) less than \(\frac{5}{12}\).
Can you follow the instructions to work out the code to unlock the biscuit jar?

- Imagine you are facing 1. Make a \( \frac{1}{4} \) turn clockwise.
- Now turn 180° anticlockwise.
- Now turn a right angle anticlockwise.
- Finally, turn a \( \frac{3}{4} \) turn clockwise.