

Classifying angles – acute, right, obtuse and straight

WHAT THIS LESSON TEACHES

An angle is the amount of turn between two lines that meet at a point. A right angle is a square corner (a quarter turn). An acute angle is smaller than a right angle, an obtuse angle is bigger than a right angle but not flat, and a straight angle is a flat line (a half turn).

- The narrow opening of scissors just starting to open is an acute angle.
- A clock hand from 12 down to 6 makes a straight angle.

MODEL THIS ON THE BOARD

CLASSIFYING A CLOCK ANGLE

- 1 The minute hand points to **12** and the hour hand points to **3**.
- 2 Compare the opening between the hands to a square corner.
- 3 The hands make an exact square corner, so this is a **right angle**.



DISCUSSION STARTER

REFLECT Does checking against a right angle make acute and obtuse angles easier to name?

ANSWER KEY

- a) smaller than a right angle, is not a half turn
- b) exactly a right angle, is not a half turn
- c) bigger than a right angle, is not a half turn

Q1: straight

Q2: obtuse

- a) Always — By definition an acute angle is less than a quarter turn.
- b) Always — An obtuse angle is always greater than a square corner but less than a straight line.
- c) Always — A half turn equals two quarter turns.
- d) Always — Fitting the square corner exactly means it is a quarter turn.

EXTENSION SHEET · STRETCH ANSWERS

S1: 161° is obtuse

S2: 158° is obtuse

S3: 126° is obtuse

S4: 17° is acute

S5: 81° is acute