

Angles on a line, at a point and vertically opposite

WHAT THIS LESSON TEACHES

Angles on a straight line add to 180 degrees. Angles around a point add to 360 degrees. Vertically opposite angles are equal.

→ If one angle on a line is 125 degrees the other is 180 minus 125 equals 55 degrees.

→ Three angles round a point of 90 degrees 140 degrees and one unknown the unknown is 360 minus 90 minus 140 equals 130 degrees.

MODEL THIS ON THE BOARD

FIND THE MISSING ANGLE ON A LINE

- ① Start with the straight line rule that all angles add to 180 degrees.
- ② Subtract the known angle from 180 degrees.
- ③ 140 degrees is given so the missing angle is 180 minus 140.

ANSWER KEY

Scaffold: visual check on the page

Q1: 40°

Q2: 70°

Q3: 120°

Q4: 0°

Q5: 70°, 110°, 70°

a) Always — This is the straight line rule.

b) Never — They are always equal when two lines cross.

c) Always — This is the point rule.

d) Never — It depends on the given angle.

EXTENSION SHEET · STRETCH ANSWERS

S1: 41°

S2: 124°

S3: 27°

S4: 27°

S5: 48°