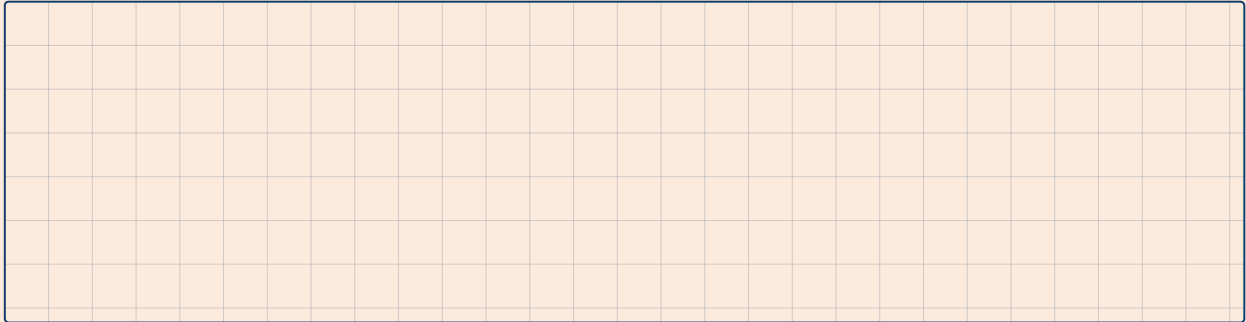


SOLVING A CHAINED FIGURE STEP BY STEP

- 1 Find the triangle's third angle first: $180^\circ - 65^\circ - 40^\circ = 75^\circ$ (triangle angles).
- 2 Use that 75° to find the angle beside it on the straight line: $180^\circ - 75^\circ = 105^\circ$ (straight line).
- 3 The vertically opposite angle to 105° is also 105° .

WARM-UP

Sketch the figure in the space below, then work out the angles in order.

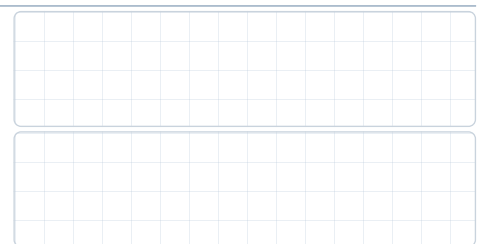


1. Sketch a triangle standing on a straight line, and mark two of its angles as 60° and 70° .
2. Work out the triangle's third angle and mark it.
3. Work out the angle beside it on the straight line and mark it.

PRACTICE

- 1 A ruler lies straight on the desk. One angle beside it is 95° . What is the other angle on the straight line?
- 2 Pupils draw a triangle on the whiteboard showing 15° and 30° .
A triangle drawn on the board has angles 15° and 30° . What is the third?

- 3 A triangle sits on a straight edge with angles of 45° and 35° marked inside it. What is the angle on the straight edge next to its third angle?
- 4 A triangle on the wall chart has angles of 20° and 25° and sits on a straight line. Find its third angle, then the angle beside it on the straight line.



ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Write A, S or N.

- a. Angles on a straight line add up to 180° . ☐
- b. In a chain of angle facts, you can find the last angle before the ones it depends on. ☐
- c. Vertically opposite angles are equal when lines cross. ☐
- d. An angle problem needs both triangle facts and straight-line facts. ☐

