

Angle sum of a triangle

WHAT THIS LESSON TEACHES

The three angles inside any triangle always add up to 180 degrees.

→ 50 degrees plus 70 degrees plus 60 degrees equals 180 degrees.

→ A triangle with a 40 degree top angle has two equal base angles of 70 degrees each.

MODEL THIS ON THE BOARD

SOLVE FOR THE MISSING ANGLE

- 1 Add the two known angles: 50 degrees plus 60 degrees.
- 2 Subtract the sum from 180 degrees to find the third angle.
- 3 The missing angle is 70 degrees.

ANSWER KEY

Scaffold: visual check on the page

Q1: 80 degrees

Q2: 85 degrees

Q3: 25 degrees

Q4: 40°

Q5: 67.5 degrees

Q6: 110 degrees

a) Always — This is the rule for every triangle.

b) Never — No angle in a triangle can be 200 degrees or more as the sum is 180.

c) Always — Because 50 plus 60 plus 70 equals 180.

d) Never — The top angle can be any measure as long as base angles match and sum to 180.

EXTENSION SHEET · STRETCH ANSWERS

S1: 46°

S2: 74°

S3: 57°

S4: 42°

S5: 44°