

Varied Fluency

Step 5: Angles in a Triangle

National Curriculum Objectives:

Mathematics Year 6: (6G3a) [Draw 2-D shapes using given dimensions and angles](#)

Mathematics Year 6: (6G2a) [Compare and classify geometric shapes based on their properties and sizes](#)

Mathematics Year 6: (6G4a) [Find unknown angles in any triangles, quadrilaterals, and regular polygons](#)

Differentiation:

Developing Questions to support calculating one missing angle in a triangle (angles given in multiples of 10).

Expected Questions to support calculating up to two missing angles in a triangle (angles given in multiples of 5).

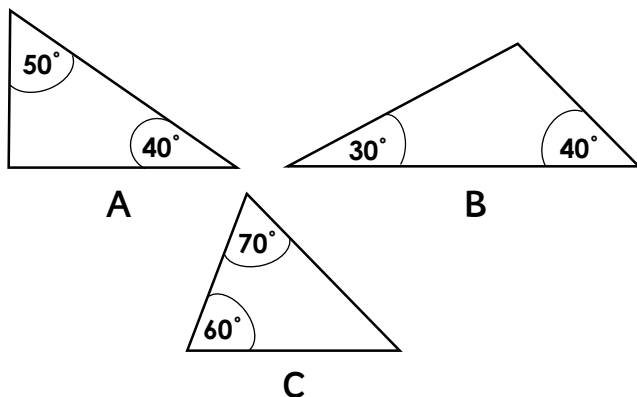
Greater Depth Questions to support calculating up to two missing angles in a triangle (when angles are given in one degree increments).

More [Year 6 Properties of Shapes](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Angles in a Triangle 1

1a. Which triangle is missing an acute angle?

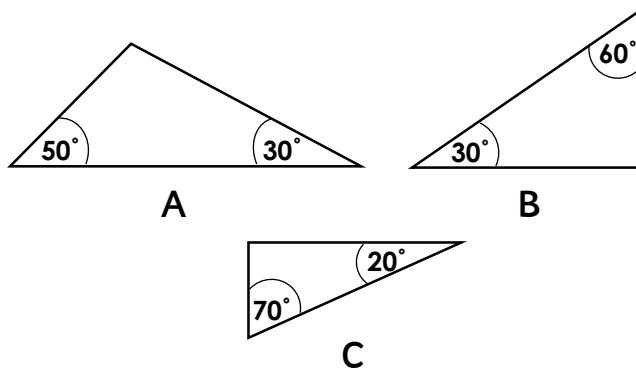


Triangles not drawn to scale.

VF

Angles in a Triangle 1

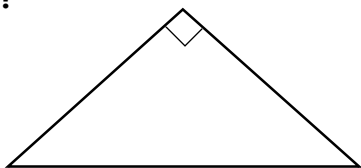
1b. Which triangles are missing a right angle?



Triangles not drawn to scale.

VF

2a. Is this a right-angle or a scalene triangle?



Triangles not drawn to scale.

VF

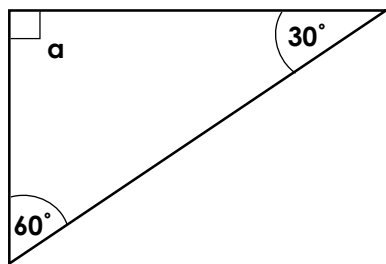
2b. Is this an isosceles or a scalene triangle?



Triangles not drawn to scale.

VF

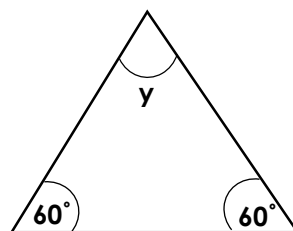
3a. All the angles in a triangle add to make 180° . Find angle a.



Triangles not drawn to scale.

VF

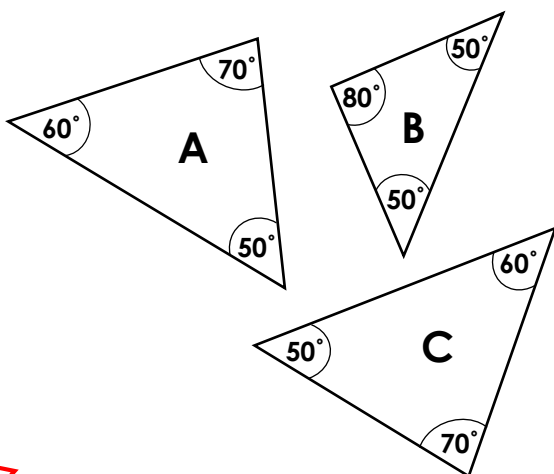
3b. All the angles in a triangle add to make 180° . Find angle y.



Triangles not drawn to scale.

VF

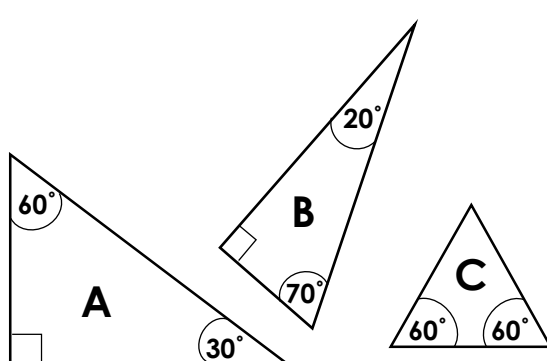
4a. Which is the odd one out?



Triangles not drawn to scale.

VF

4b. Which is the odd one out?

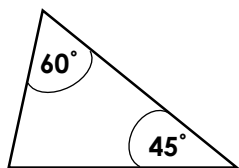


Triangles not drawn to scale.

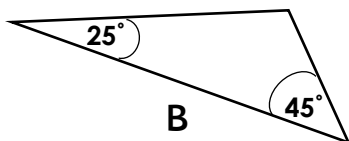
VF

Angles in a Triangle 1

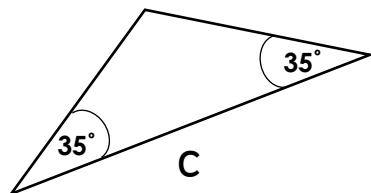
5a. Which triangle is missing an acute angle?



A



B



C

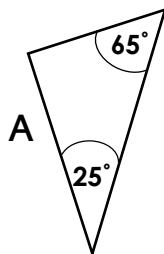


Triangles not drawn to scale.

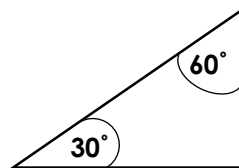
VF

Angles in a Triangle 1

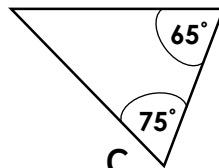
5b. Which triangles are missing a right angle?



A



B



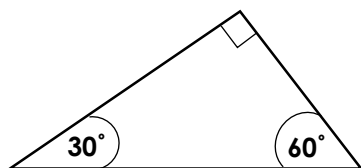
C



Triangles not drawn to scale.

VF

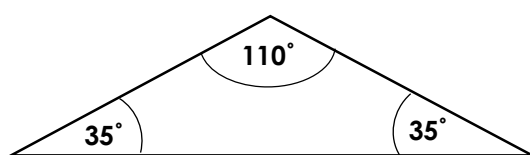
6a. What kind of triangle is this?



Triangles not drawn to scale.

VF

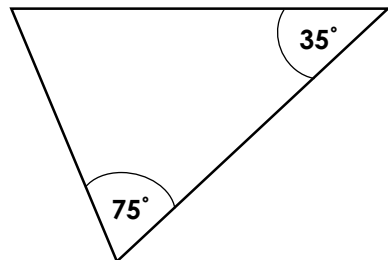
6b. What kind of triangle is this?



Triangles not drawn to scale.

VF

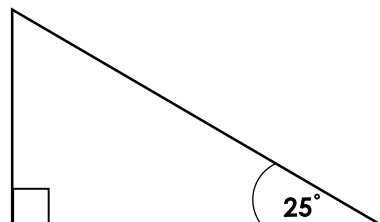
7a. Find the missing angle.



Triangles not drawn to scale.

VF

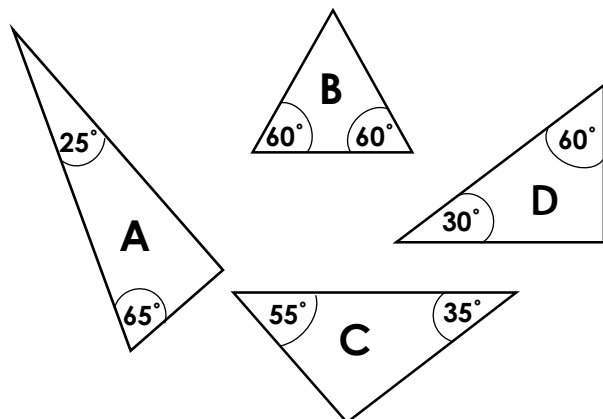
7b. Find the missing angles.



Triangles not drawn to scale.

VF

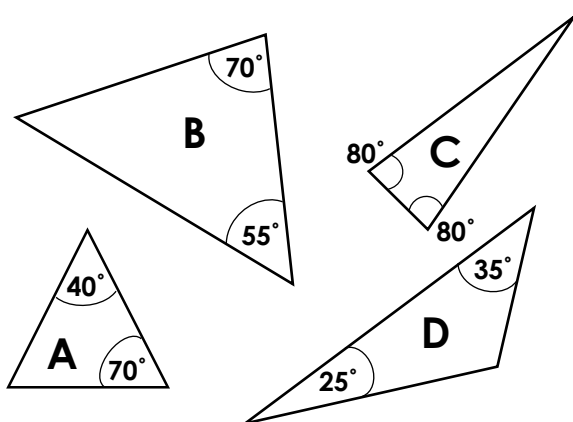
8a. Which is the odd one out?



Triangles not drawn to scale.

VF

8b. Which is the odd one out?

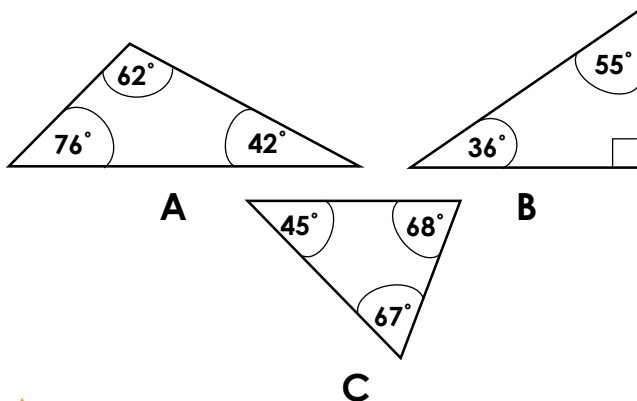


Triangles not drawn to scale.

VF

Angles in a Triangle 1

9a. Which triangle's angles do not add up correctly?

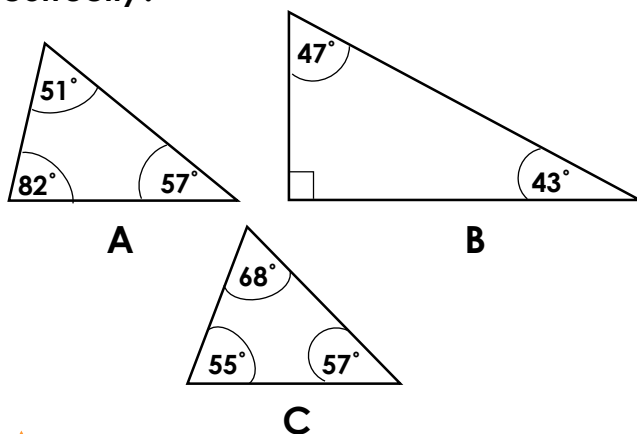


Triangles not drawn to scale.

VF

Angles in a Triangle 1

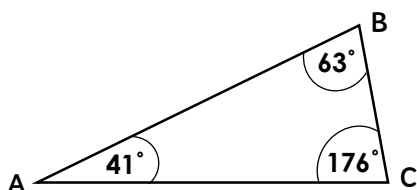
9b. Which triangle's angles do not add up correctly?



Triangles not drawn to scale.

VF

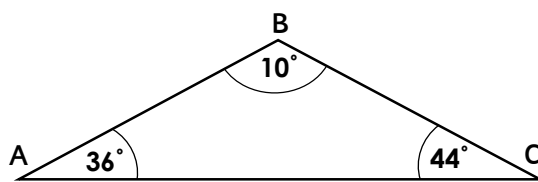
10a. Which angle is incorrectly marked?



Triangles not drawn to scale.

VF

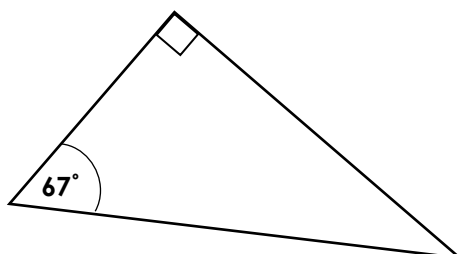
10b. Which angle is incorrectly marked?



Triangles not drawn to scale.

VF

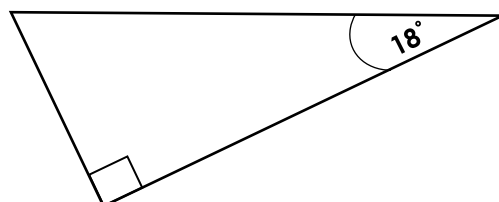
11a. Find the missing angles.



Triangles not drawn to scale.

VF

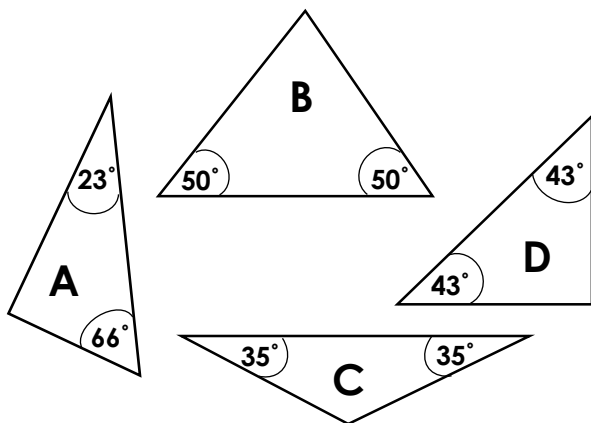
11b. Find the missing angles.



Triangles not drawn to scale.

VF

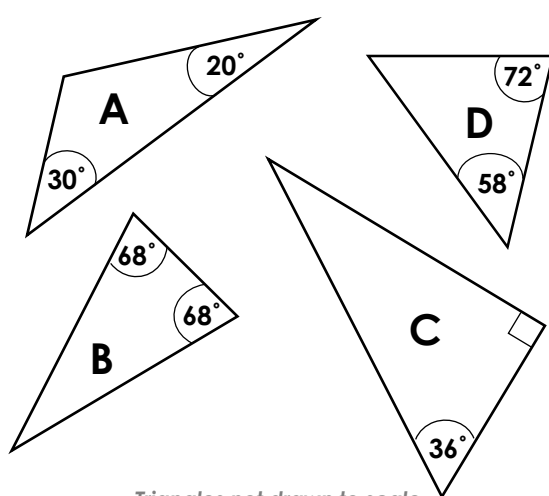
12a. Which is the odd one out?



Triangles not drawn to scale.

VF

12b. Which is the odd one out?



Triangles not drawn to scale.

VF

Varied Fluency
Angles in a Triangle 1

Developing

- 1a. **C**
- 2a. **Right triangle**
- 3a. **90°**
- 4a. **B**

Expected

- 5a. **A**
- 6a. **Right-angled scalene**
- 7a. **70°**
- 8a. **B**

Greater Depth

- 9a. **B**
- 10a. **C, it should be 76°**
- 11a. **90° and 23°**
- 12a. **A (only scalene triangle) or C (only triangle with an obtuse angle)**

Varied Fluency
Angles in a Triangle 1

Developing

- 1b. **B and C**
- 2b. **Scalene triangle**
- 3b. **60°**
- 4b. **C**

Expected

- 5b. **A and B**
- 6b. **Isosceles**
- 7b. **90° and 65°**
- 8b. **D**

Greater Depth

- 9b. **A**
- 10b. **B, it should be 100°**
- 11b. **90° and 72°**
- 12b. **B (only isosceles triangle) or C (only triangle with a right angle)**