

Homework/Extension

Step 6: Angles in a Triangle 2

National Curriculum Objectives:

Mathematics Year 4: (4F8) [Compare numbers with the same number of decimal places up to two decimal places](#)

Mathematics Year 4: (4F10b) [Solve simple measure and money problems involving fractions and decimals to two decimal places](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Calculating missing angles when finding one missing angle (where all angles are multiples of 10) in isosceles and right-angled triangles.

Expected Calculating missing angles when finding two missing angles in isosceles and right-angled triangles (when angles are in multiples of 5).

Greater Depth Calculating missing angles when finding two missing angles in isosceles and right-angled triangles (when angles are given in exact degrees).

Questions 2, 5 and 8 (Varied Fluency)

Developing Decide whether a statement is true or false when finding one missing angle (where all angles are multiples of 10) in isosceles and right-angled triangles.

Expected Decide whether a statement is true or false when finding two missing angles in isosceles and right-angled triangles (when angles are in multiples of 5).

Greater Depth Decide whether a statement is true or false when finding two missing angle in isosceles and right-angled triangles (when angles are given in exact degrees).

Questions 3, 6 and 9 (Problem Solving and Reasoning)

Developing Decide which statement is correct and explain why when finding one missing angle (where all angles are multiples of 10) in isosceles and right-angled triangles.

Expected Decide which statement is correct and explain why when finding two missing angles in isosceles and right-angled triangles (when angles are in multiples of 5).

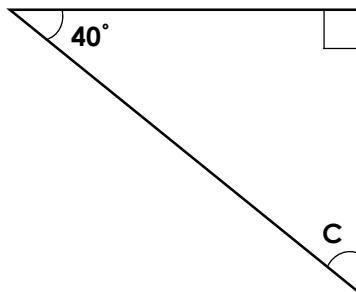
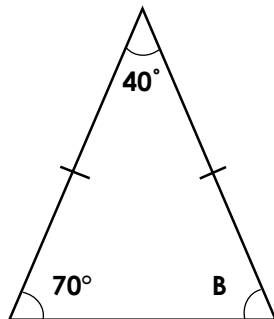
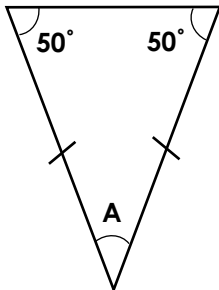
Greater Depth Decide which statement is correct and explain why when finding two missing angle in isosceles and right-angled triangles (when angles are given in exact degrees).

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 2

1. Match each triangle to its missing angle.



70°

80°

50°

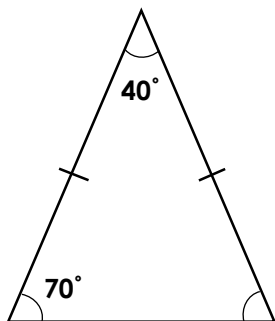


Triangles not drawn to scale.

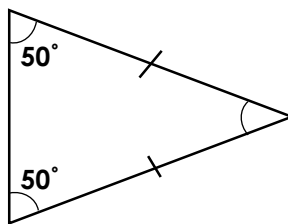
VF
HW/Ext

2. True or false? The missing angles in the triangles below are all equal.

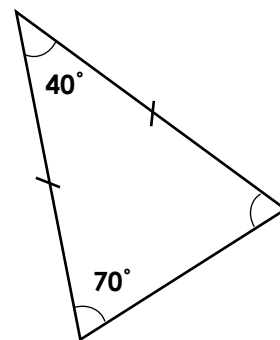
A.



B.



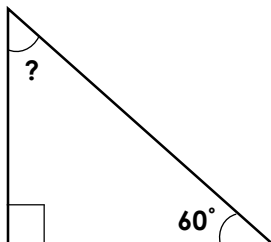
C.



Triangles not drawn to scale.

VF
HW/Ext

3. Hafsa and Chuan are calculating angles in the triangle below.



Chuan

The missing angle is 60°.



Hafsa

The missing angle is 30°.

Who is correct?
Explain how you know.

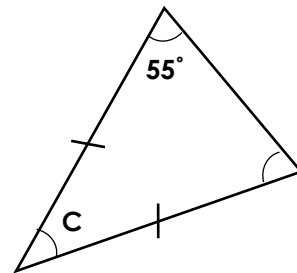
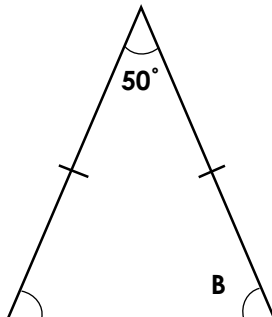
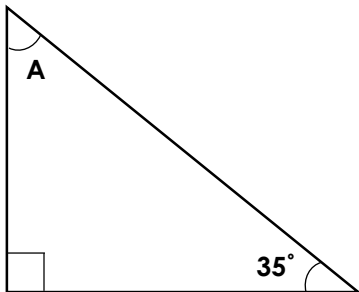


Triangles not drawn to scale.

RPS
HW/Ext

Angles in a Triangle 2

4. Match each triangle to its missing angle.



70°

55°

65°

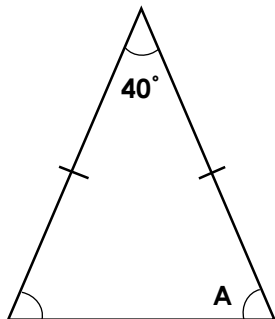


Triangles not drawn to scale.

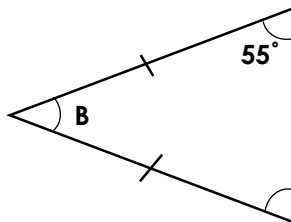
VF
HW/Ext

5. True or false? The missing angles in the triangles below are all equal.

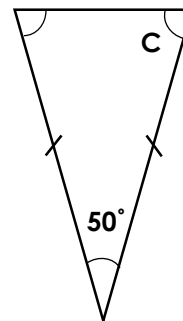
A.



B.



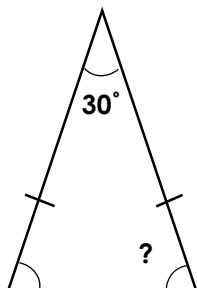
C.



Triangles not drawn to scale.

VF
HW/Ext

6. Steph and Sean are calculating angles in the triangle below.



Steph

The missing angle is 55°.



Sean

The missing angle is 75°.

**Who is correct?
Explain how you know.**

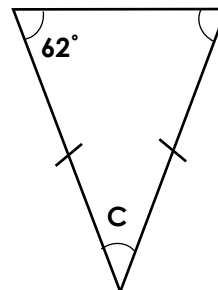
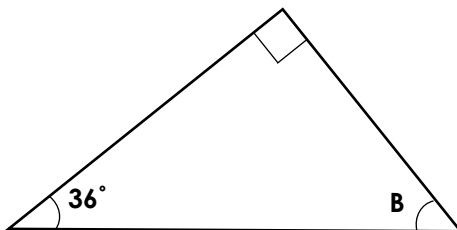
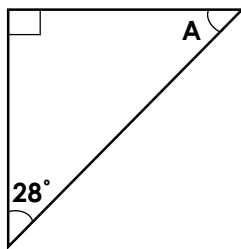


Triangles not drawn to scale.

RPS
HW/Ext

Angles in a Triangle 2

7. Match each triangle to its missing angle.



56°

62°

54°

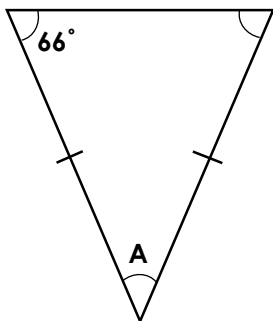


Triangles not drawn to scale.

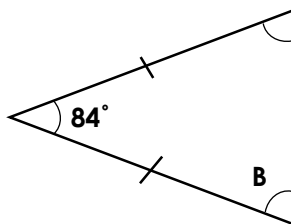
VF
HW/Ext

8. True or false? The missing angles in the triangles below are all equal.

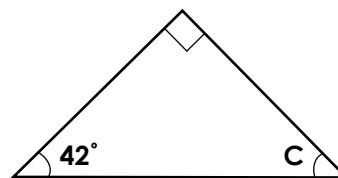
A.



B.



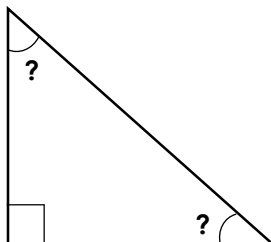
C.



Triangles not drawn to scale.

VF
HW/Ext

9. Alice and Johnny are calculating angles in the triangle below.



Alice

The missing angles could be 56° and 34°.



Johnny

The missing angles could be 49° and 41°.

Who is correct?
Explain how you know.



Triangles not drawn to scale.

RPS
HW/Ext

Homework/Extension Angles in a Triangle 2

Developing

1. $A = 80^\circ$, $B = 70^\circ$, $C = 50^\circ$
2. False. A and $C = 70^\circ$, $B = 80^\circ$
3. Hafsa is correct. The angles would add up to 210° in Chuan's triangle.

Expected

4. $A = 65^\circ$, $B = 65^\circ$, $C = 70^\circ$
5. False. A and $B = 70^\circ$, $C = 65^\circ$
6. Sean is correct. The angles would add up to 140° in Steph's triangle.

Greater Depth

7. $A = 62^\circ$, $B = 54^\circ$, $C = 56^\circ$
8. True. A , B and $C = 48^\circ$
9. They are both correct. Both options would mean the angles add up to 180°