Arithmetic

1. 4.284 + 6.23

2. 0 x 46

3. 29 x 583

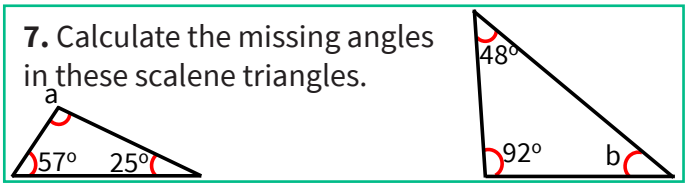
4. 42% of 980

Practice: Angles in a Triangle

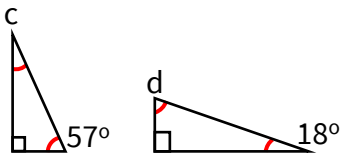
5. Recap: Angles in any triangle add up to ?.

6. Complete the sentences.
Each angle in an equilateral triangle is ? degrees.
In a right-angled triangle, the other two angles add up to ? degrees.

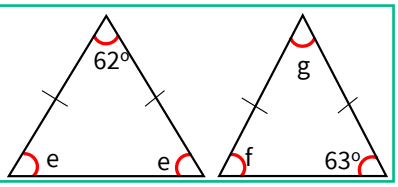
7. Calculate the missing angles in these scalene triangles.



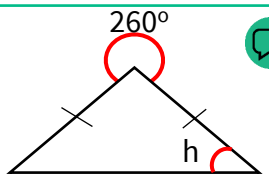
8. Calculate the missing angles in these right-angled triangles.



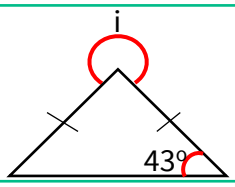
9. Calculate the missing angles in these isosceles triangles.



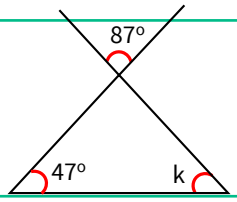
10. Explain how to find this missing angle.



11. Calculate the missing angle in this isosceles triangle.



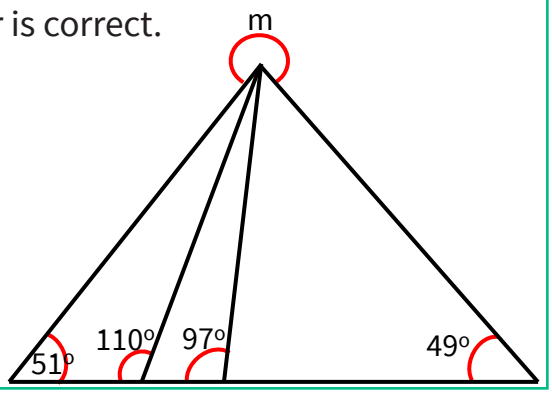
12. Calculate the missing angles in this scalene triangle.



13. Riccardo says he has drawn a triangle with two obtuse angles. Can Riccardo be correct? Explain.

Challenge

14. Calculate the missing angle m. Prove your answer is correct.



You might want to talk to an adult

Spot the mistake

Answers

Q no.	Question	Answer
1	4.284 + 6.23	10.514
2	0 x 46	0
3	29 x 583	16,907
4	42% of 980	411.6
5	Angles in any triangle add up to ?.	180°
6	Complete the sentences.	60, 90
7	Calculate the missing angles in these scalene triangles.	a. 98°, b. 40°
8	Calculate the missing angles in these right-angled triangles.	c. 33°, d. 72°
9	Calculate the missing angles in these isosceles triangles.	e. 59°, f. 63°, g. 54°
10	Explain how to find this missing angle.	Questions such as these rely on the pupil using all their understanding of angles. They need to know that there are 360° in a full circle. From there they can identify that 100 degrees is missing at the top. As they can see that the triangle is an isosceles triangle, they know that the two remaining angles will be equal. There are 180° in a triangle, so 180° - 100° = 80°. 80° divided by 2 = 40°. h = 40°
11	Calculate the missing angle in this isosceles triangle.	i = 266°
12	Calculate the missing angles in this scalene triangle.	k = 46°
13	Can Riccardo be correct? Explain	Riccardo cannot be correct. The internal angles on a triangle add up to 180°. As obtuse angles are larger than 90° but smaller than 180°, the smallest obtuse angles he could have would be 91° each. 91° + 91° = 182°, which is already larger than the sum of the internal angles of a triangle without the final angle.
14	Calculate the missing angle m. Prove your answer is correct.	The missing angle is 280°. Pupils can prove their answer is correct by showing their calculations to find the angles in all three triangles. In the first triangle the angles are - 51°, 110°, 19°. In the middle triangle the angles are - 97°, 70°, 13° In the end triangle the angles are - 49°, 83°, 48° For the largest triangle (encompassing the other three triangles) the angles are 51°, 49°, 80°.