ZiloAcademy

✨ Grade 9 Maths — Geometric Proof ✨

Name: Demo **Date:** 26/11/2026

1. Two angles on a straight line are 60° and (4x + 108)°. Find x:

2. What geometric reason justifies each (separate your two answers with a semicolon)? 1) "Two angles between parallel lines on the same side of a transversal add to 180°" 2) "Two angles standing on the same arc from the circumference are equal"

3. What geometric reason justifies each (separate your two answers with a semicolon)? 1) "Two angles sit between two parallel lines on alternating sides of a transversal and are equal" 2) "Two angles sit between parallel lines on the same side of a transversal and are equal"

4. Two angles on a straight line are 59° and (4x + 105)°. Find x:

5. Two angles on a straight line are 55° and (2x + 115)°. Find x:

6. Two angles on a straight line are 21° and (5x + 134)°. Find x:

7. Two angles on a straight line are 27° and (2x + 137)°. Find x:

8. Two angles on a straight line are 20° and (4x + 128)°. Find x:

9. What geometric reason justifies this: "The diagonals of a parallelogram bisect each other"? (state the angle rule)

10. What geometric reason justifies each (separate your two answers with a semicolon)? 1) "Two base angles of an isosceles triangle are equal" 2) "Two angles sit next to each other on a straight line and add to 180°"