

Grade 8 - Angles in Triangles and Parallel Lines - Test

Common Core 8.G.A.5 · maths-pdf.fr/en/

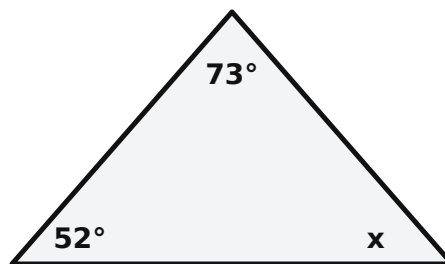
Name: _____ Class: _____ Date: ____/____/____

This 20-point test checks angle relationships in triangles and with parallel lines cut by a transversal (Common Core 8.G.A.5). Work alone, show every step, and write each final answer clearly. You have 45 minutes. Calculators are not needed unless a question says so.

About this test

- Grade: Grade 8
- Chapter: Angles in Triangles and Parallel Lines
- Standards: 8.G.A.5
- Time: 45 minutes
- Total: 20 points

Question 1 - Triangle angles [3 pts]



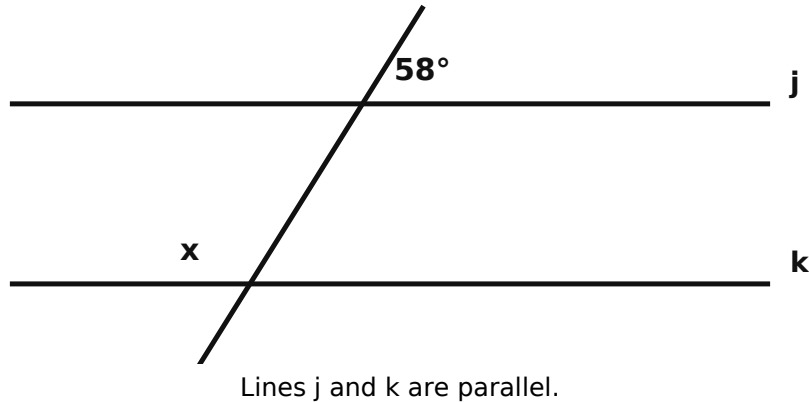
Find x . Not drawn to scale.

Find the third angle of the triangle and the exterior angle at the right vertex.

Question 2 - Solve for x [3 pts]

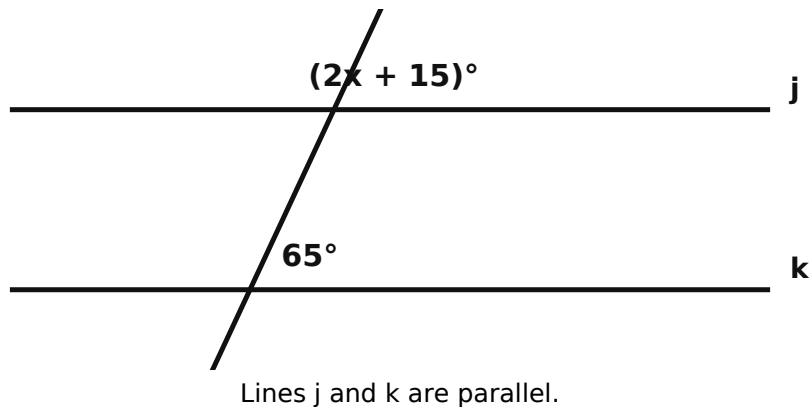
The angles of a triangle are x , $2x+15$ and $3x-15$ degrees. Find x and the three angles.

Question 3 - Parallel lines [3 pts]



Lines j and k are parallel. Find the angle marked x and explain how you know.

Question 4 - Equation with angles [3 pts]



Lines j and k are parallel. Find x .

Question 5 - Similar triangles [3 pts]

Triangle 1 has angles 35° and 90° . Triangle 2 has angles 90° and 55° . Are they similar? Explain.

Question 6 - Exterior angle [2 pts]

An exterior angle of a triangle is 118° . One remote interior angle is 49° . Find the other remote interior angle.

Question 7 - Linear pair [1 pt]

Two angles form a linear pair. One is 20° less than three times the other. Find both angles.

Question 8 - Explain [2 pts]

A student says a triangle can have two right angles. Explain why this is impossible.