

Triangles

Triangles are the most basic polygons. They have three sides.

The three angles of a triangle must add to _____.

Triangle Inequality:

The lengths of the two shorter sides of a triangle must add to more than the length of the _____ side.

Can these be a triangle?

1) 2, 5, 6 2) 3, 8, 12

3) 2, 7, 9 4) 20, 15, 34

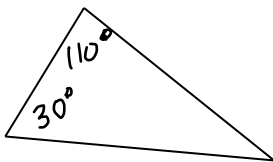
Give one example of each:

The sides form a triangle: _____ The sides do NOT form a triangle: _____

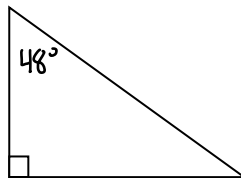
Angles of a triangle always add to _____.

Find the missing angles:

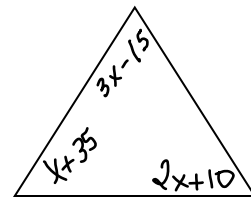
1)



2)



3) Be sure to find all three angles!



4) Find the largest angle of a triangle whose angles measure

$$3x + 7, 2x \text{ and } 16x + 5$$

5) Can these be triangles?

a) 6, 3, 5

b) $60^\circ, 24^\circ, 92^\circ$

c) 8, 2, 6

d) $122^\circ, 43^\circ, 15^\circ$