

5.5 Inequalities in one triangle

Lots of inequalities occur in triangles

side relationships
angle relationships

British F

Guen BC > EF

To one triangle

30 C

Stortest side is apposite
of the smallest angle
Longest side is opposite
of the largest angle

AB, BC, AC

Exterior Angle Theorem

m/1 = m/A + m/B

Inequalities

since MA, m/B + 0

m/1 > m/A, m/1 > m/B

Ranges in Size

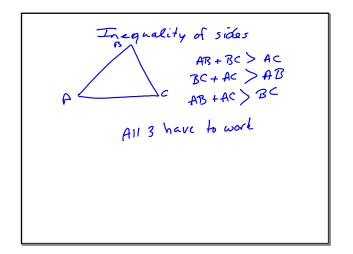
In triangles the lengths

of two sides must have a

sum of more than the Birdside

2,2,5

3,5,8



Two sides of a triangle are 10 and 14

Name the other side X

X+10>14 X+14>10 10+14>X

X>4 24>X

4<X < 24