1/22 Applying Triangle Sum Properties

ch 4.1

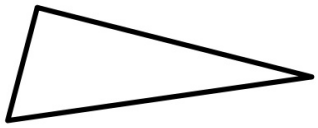
A triangle is a 3 sided polygon.

A triangle with the vertices A,B,C

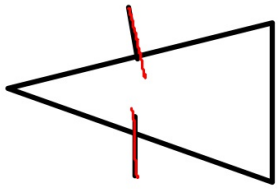
can be named $\triangle ABC$

Classifying triangles by side

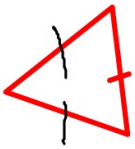
scalene: no congruent sides



isosceles: 2 congruent sides

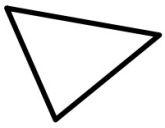


Equalateral: all sides congruent



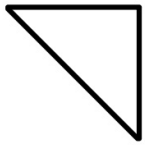
Classify by angle

Acute



3 acute angles

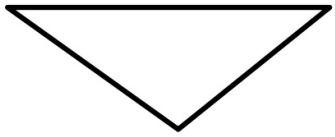
Right



1 right angle

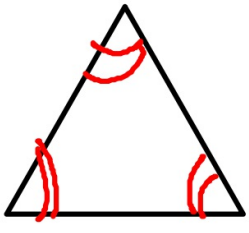
90°

Obtuse



1 obtuse angle

Equilangular



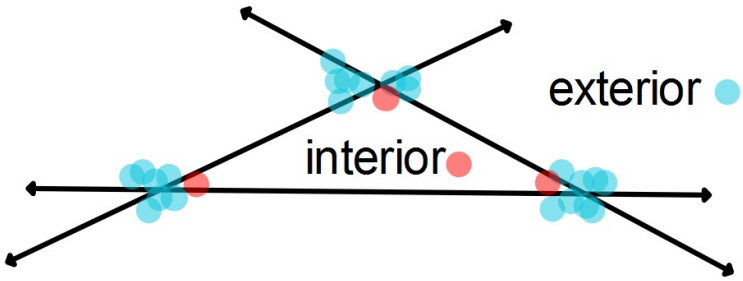
all 3 angles equal

acute angle Less than 90°

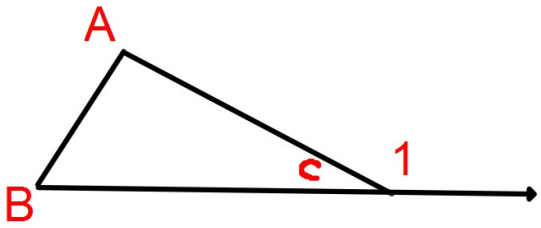
Right angle = 90°

Obtuse angle Greater than 90°

Angles



The 3 interior angles of a triangle always add up to 180°



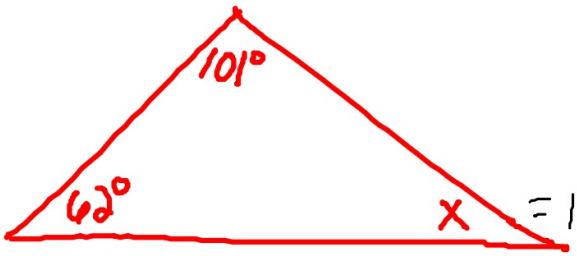
$m\angle A + m\angle B = m\angle 1$

also

$180 - m\angle C = m\angle 1$

Ex

find x



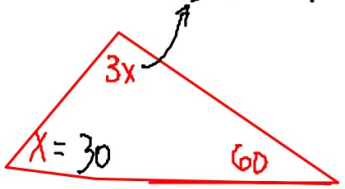
$180° -$

$180 -$

$=17$

$101 + 62 = 163$

$\begin{array}{r} 180 \\ -163 \\ \hline 17 \end{array}$



$3 \cdot 30 = 90$

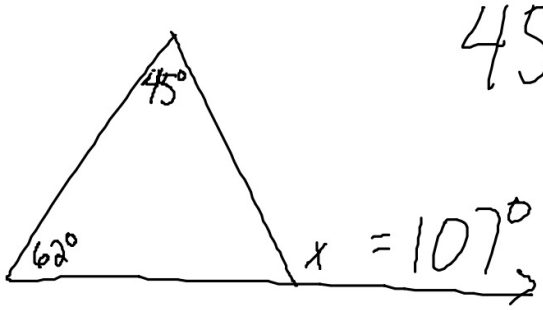
$3x + x + 60 = 180$

$4x + 60 = 180$

$-60 \quad -60$

$\frac{4x}{4} = \frac{120}{4}$

$x = 30$



$45+62=107^{\circ}$

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Home work:
pg 211 1-16