

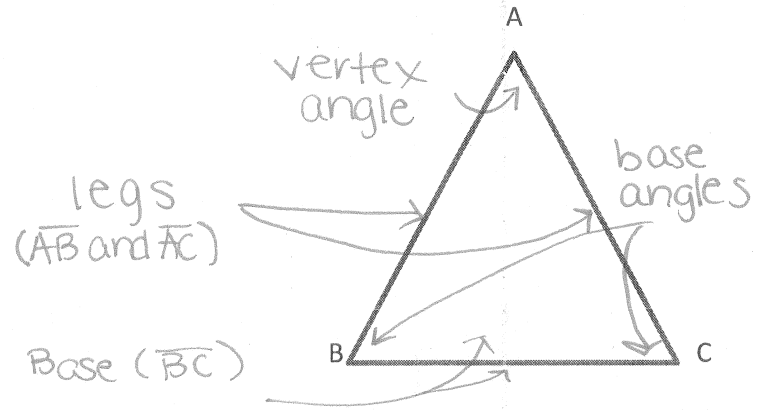
H. Geometry - Chapter 4 - Definition Sheet

Section 4.2

• Definition of Isosceles Triangle

A triangle with at least two congruent sides.

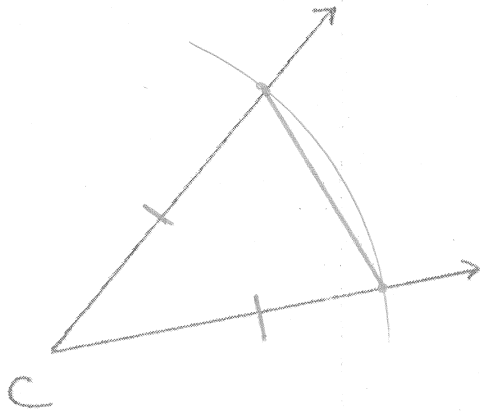
Parts:



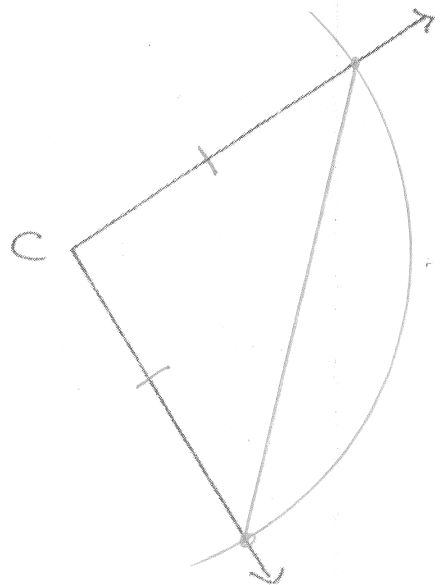
INVESTIGATION 1 (p. 207)

— CONSTRUCTING AN ISOSCELES TRIANGLE

* WITH AN ACUTE \angle



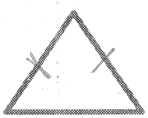
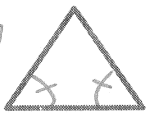
* WITH AN OBTUSE \angle



Measure out the base angles.... What do you notice?!?!

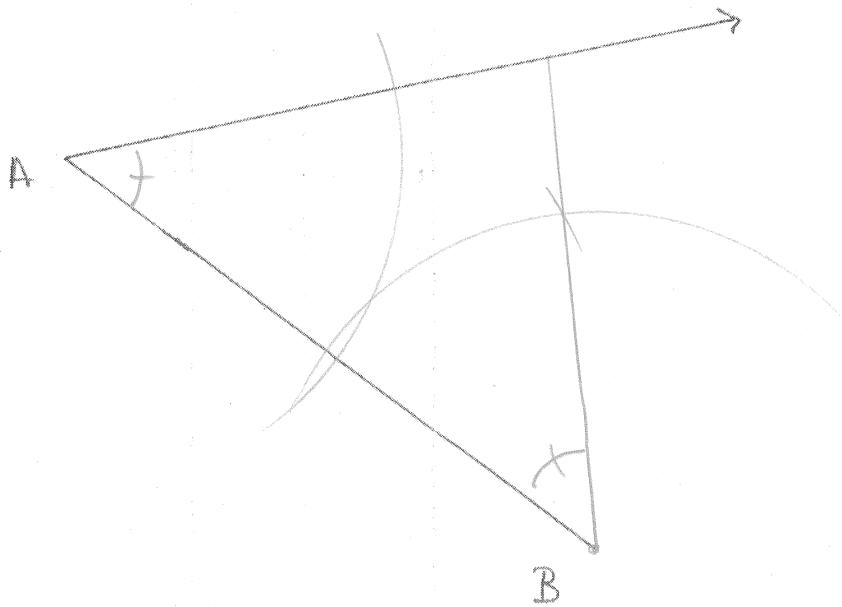
Base Angles are equal!

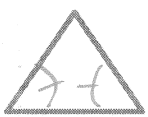
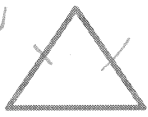
H. Geometry - Chapter 4 - Definition Sheet

<p>Isosceles Triangle Theorem</p>	<p>If a triangle is <u>Isosceles</u>, then its' <u>base angles</u> are congruent.</p> <p>IF  THEN </p>
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INVESTIGATION 2 (p. 208)

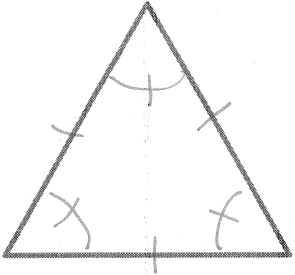
- CONSTRUCTING A TRIANGLE WITH 2 \cong \angle 's



<p>_____ of a triangle</p>	<ul style="list-style-type: none"> The segment connecting a vertex of a triangle to the _____ of the opposite side. <p>IF  THEN </p>
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Isosceles Δ converse Theorem \rightarrow If a triangle has 2 congruent angles, then it is an isosceles triangle

H. Geometry – Chapter 4 – Definition Sheet

<p>Application to Equilateral Triangles</p>	<p>If $\triangle ABC$ is equilateral, is it equiangular? Yes</p> <p>If $\triangle ABC$ is equiangular, is it equilateral? Yes</p> 
<p>Equilateral Triangle Theorem</p>	<p>(1) An equilateral triangle is equiangular (2) An equiangular triangle is equilateral</p>