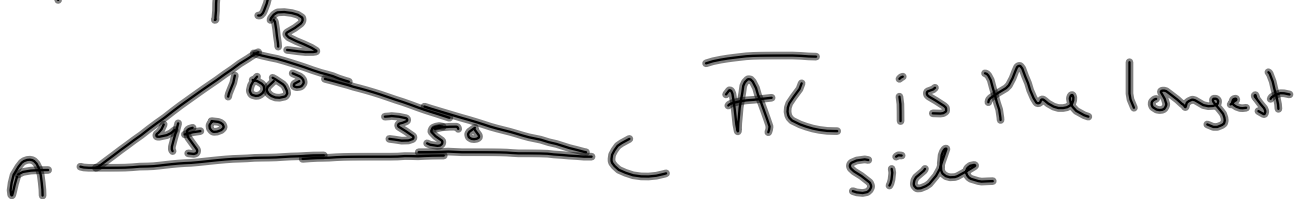
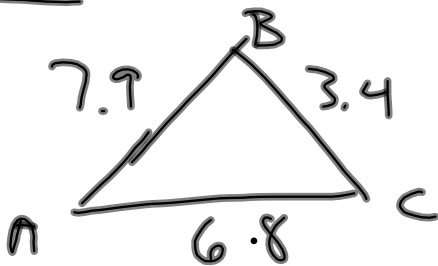


5.5 Inequalities in \triangle

5-5-1: If 2 sides of a \triangle are not \cong , then the larger \angle is opp. the longer side



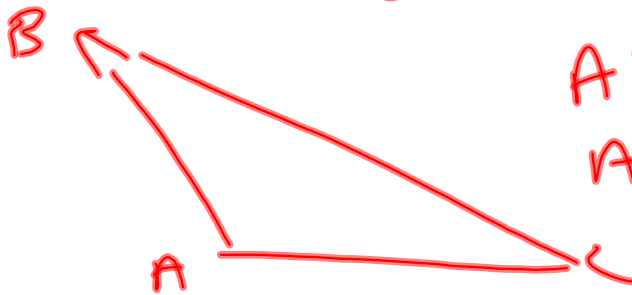
5-5-2: converse of 5-5-1



From least to greatest
 $\angle A, \angle B, \angle C$

△ Inequality theorem

The sum of any 2 sides of a \triangle is greater than the 3rd side



$$AB + AC > BC$$

$$AC + BC > AB$$

$$BC + AB > AC$$

Tell whether a \triangle can have the following side lengths:

8, 13, 21

$$13 + 21 > 8 \checkmark$$

$$21 + 8 > 13 \checkmark$$

$$8 + 13 > 21 \times$$

No

6.2, 7, 9

$$6.2 + 7 > 9 \checkmark$$

Yes

HW: P. 336
4-15, 18-35, 42-53 evens,
odds extra credit