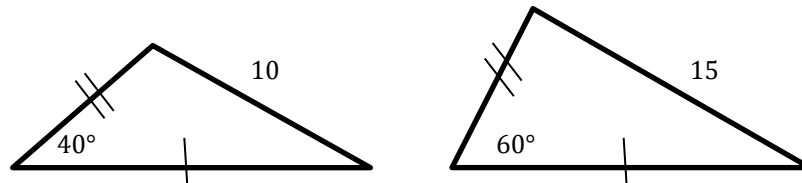


Geometry

6.6 Inequalities in Two Triangles

Hinge Theorem

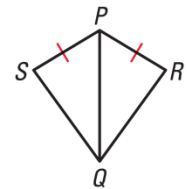
If _____ of one Δ are congruent to _____ of another Δ , and the _____ angle of the 1st Δ is _____ than the _____ angle of the 2nd Δ , then the _____ of the 1st Δ is _____ than the _____ of the 2nd Δ .



Converse of the Hinge Theorem

If _____ of one Δ are congruent to _____ of another Δ , and the _____ of the first is _____ than the _____ of the 2nd Δ , then the _____ angle of the 1st Δ is _____ than the _____ angle of the 2nd Δ .

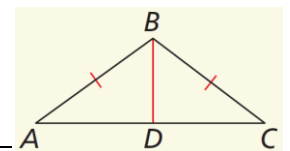
If $PR = PS$ and $m\angle QPR > m\angle QPS$, which is longer, \overline{SQ} or \overline{RQ} ?



If $PR = PS$ and $RQ < SQ$, which is larger, $m\angle RPQ$ or $m\angle SPQ$?

Given: $\overline{AB} \cong \overline{BC}$, $AD > CD$

Prove: $m\angle ABD > m\angle CBD$



Statements	Reasons
1.	1.
2.	2.
3.	3.

Two groups of joggers leave the same starting location heading in opposite directions. Each group travels 2 miles, then changes direction and travels 1 mile. Group A starts due north then turns 35° toward west. Group B starts due south then turns 25° toward east. Which group is farther from the start location? Explain your reasoning.