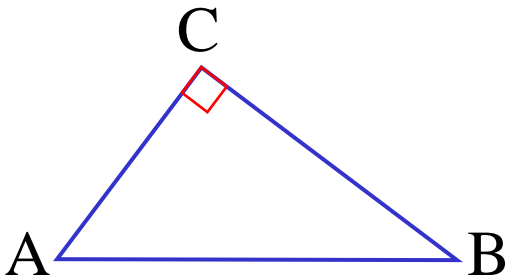


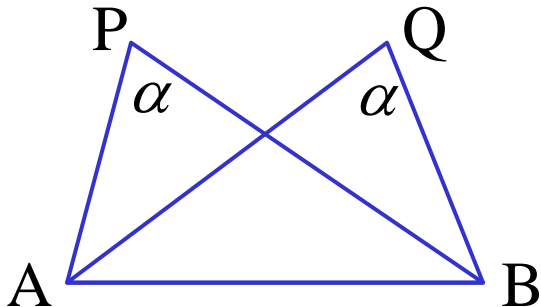
# *Converse Theorems*

- (1) The circle whose diameter is the hypotenuse of a right angled triangle passes through the third vertex.



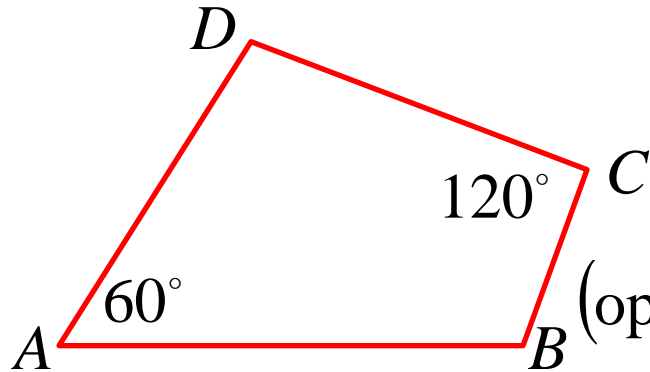
ABC are concyclic with AB diameter  
( $\angle$  in a semicircle =  $90^\circ$ )

- (2) If an interval AB subtends the same angle at two points P and Q on the same side of AB, then A,B,P,Q are concyclic.



ABQP is a cyclic quadrilateral  
( $\angle$ 's in same segment are = )

(3) If a pair of opposite angles in a quadrilateral are supplementary (or if an exterior angle equals the opposite interior angle) then the quadrilateral is cyclic.



ABCD are concyclic

(opposite  $\angle$ 's in cyclic quadrilateral are  $= 180^\circ$ )

**Exercise 9D; 1, 2, 3, 6b, 7b, 10a, 11**