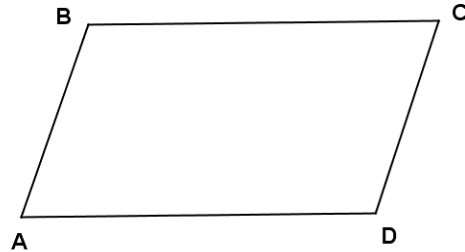


**Problem Set**

1. Given:  $\angle C$  and  $\angle D$  are supplementary.  $\angle B = \angle D$ .

Prove:  $AB \parallel CD$



2. A theorem states that *in a plane, if a line is perpendicular to one of two parallel lines, then it is perpendicular to the other of the two parallel lines.*

Prove this theorem. (a) Construct and label an appropriate figure, (b) state the given information and the theorem to be proved, then (c) list the necessary steps to demonstrate the proof.