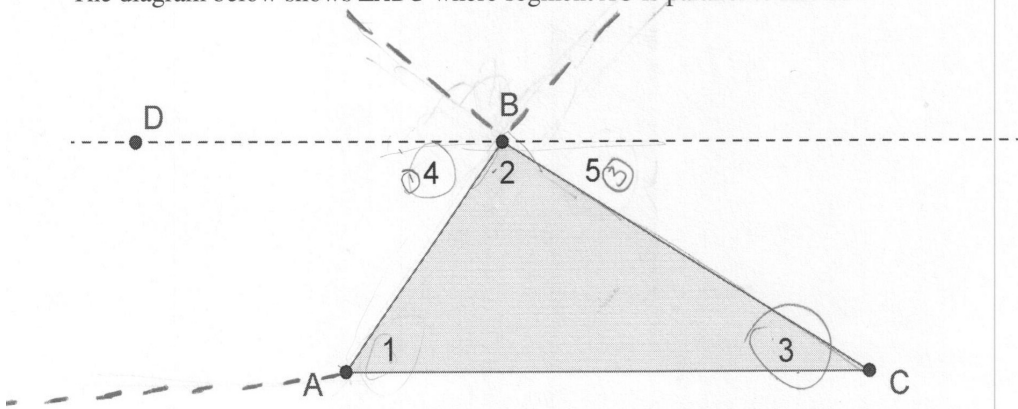


The diagram below shows  $\triangle ABC$  where segment  $AC$  is parallel to line  $BD$ .



In the space below prove that in  $\triangle ABC$ ,  $m\angle 1 + m\angle 2 + m\angle 3 = 180^\circ$ .

Statement	Reason
① $m\angle 1 + m\angle 2 + m\angle 3 = 180^\circ$	① Given
② $180^\circ = \text{straight angle}$	② Def. of straight $\angle$ .
③ $m\angle 1 \cong m\angle 4$ $m\angle 3 \cong m\angle 5$	③ alternate interior $\angle$ .
④ $m\angle 1 + m\angle 2 + m\angle 5 \cong m\angle 1 + m\angle 2 + m\angle 3$	④ alternate interior $\angle$ .
⑤ <del>AC</del> $\overline{AC} \parallel \overline{BD}$	⑤ Def of $180^\circ$ ?