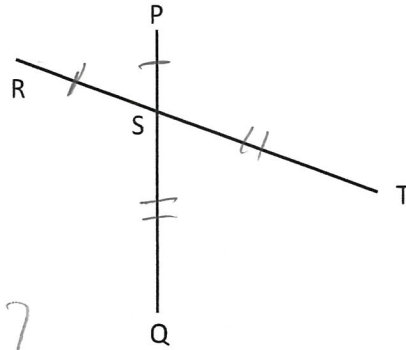


SOME SHORT FLOW PROOFS

Example A

Given:  $\overline{RT}$  and  $\overline{PQ}$  intersect at  $S$ ,  
 $RS = PS$  and  $ST = SQ$

Prove:  $RT = PQ$



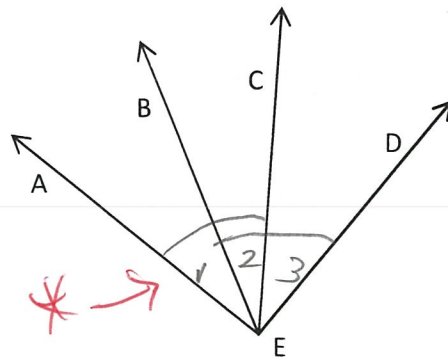
- ①  $RS = PS$   
 $ST = SQ$  }  $\rightarrow$  ②  $RS + ST = PS + SQ$   
③  $RS + ST = RT$   
 $PS + SQ = PQ$  }  $\rightarrow$  ④  $RT = PQ$

- ① Given  
② Addition Property  
③ Segment Add. Prop.  
④ Substitution

Example B

Given:  $m\angle AEC = m\angle BED$   
 $m\angle AED = m\angle BED$

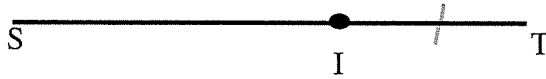
Prove:  $m\angle 1 = m\angle 3$



- ①  $m\angle AEC = m\angle BED$   
②  $m\angle 1 + m\angle 2 = m\angle AEC$   
 $m\angle 2 + m\angle 3 = m\angle BED$  }  $\rightarrow$  ③  $m\angle 1 + m\angle 2 = m\angle 2 + m\angle 3$   
 $\rightarrow$  ④  $m\angle 1 = m\angle 3$

- ① Given  
② Angle Add. Prop.  
③ Substitution  
④ Subtract Prop.

You TRY!



Given:  $ST = RN$ ;  $IT = RU$

Prove:  $SI = UN$



$$\left. \begin{array}{l} \textcircled{1} ST = RN \\ \textcircled{2} SI + IT = ST \\ RU + UN = RN \end{array} \right\} \rightarrow \left. \begin{array}{l} \textcircled{3} SI + IT = RU + UN \\ \textcircled{4} IT = RU \end{array} \right\} \rightarrow \textcircled{5} SI = UN$$

① Given

② Segment Add. Post.

③ Substitution

④ Given

⑤ Subtraction Prop.