

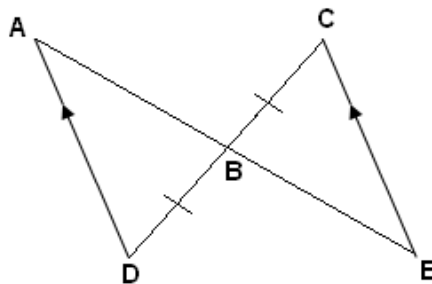
DA 6 Review (GE2): Students write geometric proofs, including proofs by contradiction.

Classwork: Complete each proof

1. (page 221, Example 2)

GIVEN:  $\overline{AD} \parallel \overline{EC}$ ,  $\overline{BD} \cong \overline{BC}$

PROVE:  $\triangle ABD \cong \triangle EBC$



Statements	Reasons
1	1
2	2
3	3
4	4
5	5

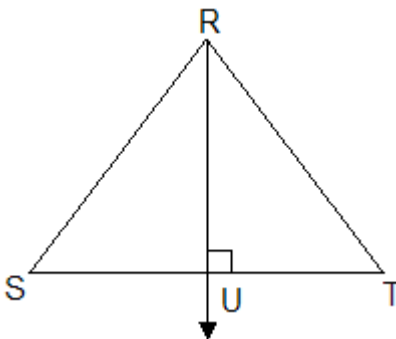
2. (page 307, #27)

Indirect proof: (prove by contradiction)

GIVEN:  $\overline{RU} \perp \overline{ST}$ ,

$\overline{RU}$  bisects  $\angle SRT$

PROVE:  $\triangle RST$  is isosceles



Hint: begin by stating that

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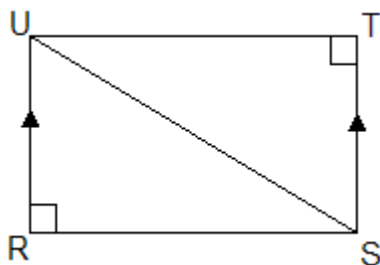
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3. (page 234, #17)

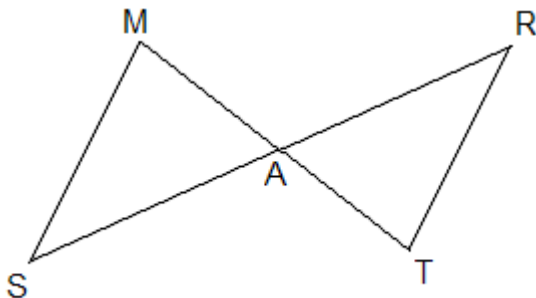
GIVEN:  $\overline{UR} \parallel \overline{ST}$ ,  
 $\angle R$  and  $\angle T$  are right angles  
 PROVE:  $\angle RSU \cong \angle TUS$



STATEMENT	REASON
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

4. (page 230, Example 2)

GIVEN: A is the midpoint of  $\overline{MT}$ ,  
 A is the midpoint of  $\overline{SR}$   
 PROVE:  $\overline{MS} \parallel \overline{TR}$



STATEMENT	REASON
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

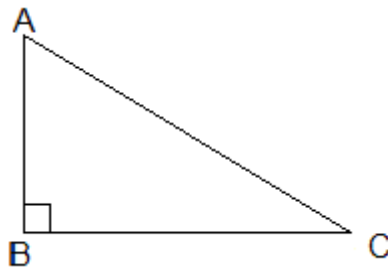
5. (page 312, #25)

Indirect proof: (prove by contradiction)

GIVEN:  $\triangle ABC$ ,

$\angle B$  is a right angle

PROVE: there can only be one right angle in a triangle



Hint: begin by stating that

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