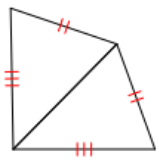
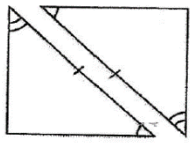
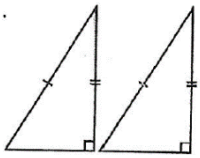
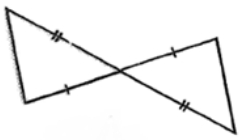
Name: _____ Date: _____

UNIT 3 **LESSON 7**

AIM: PROOF PRACTICE WITH ALL 5 SHORTCUTS!

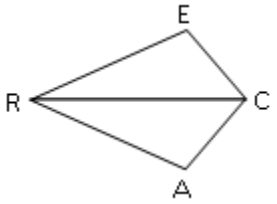
Do Now: For the following, identify if the triangles are congruent by SSS, SAS, HL, ASA or AAS. **NONE IS NOT AN OPTION!**

1. 	2. 	3. 	4. 

PROOF "SPEED-DATING" INSTRUCTIONS:

1. Your goal is to become an expert on YOUR proof to the point where you can explain your example to another student. You will have ten minutes to do this.
2. The partner closer to the window will rotate around the room so you will have a new partner each turn.
3. You and your partner will exchange problems and check to see if the problems are answered correctly.

PROOF #1:



Given: $\overline{RA} \cong \overline{RE}$

$\overline{EC} \cong \overline{AC}$

Prove: $\Delta REC \cong \Delta RAC$

STATEMENT	REASON

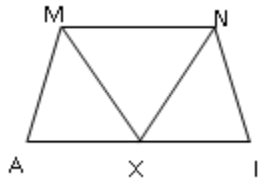
PROOF #2:

Given: X is the midpoint of $\overline{AI}$

$\angle A \cong \angle I$

$\overline{MA} \cong \overline{IN}$

Prove: $\Delta MAX \cong \Delta NIX$



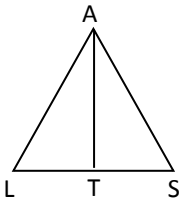
STATEMENT	REASON

PROOF #3:

Given: $\overline{AT}$ bisects $\angle LAS$

$\overline{LA} \cong \overline{AS}$

Prove: ΔATL ≅ ΔATS



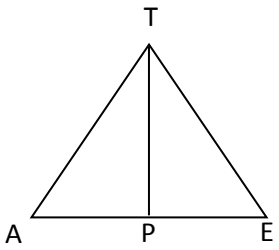
STATEMENT	REASON

PROOF #4:

Given: $\overline{PT} \perp \overline{AE}$

$\overline{AT} \cong \overline{TE}$

Prove: ΔPAT ≅ ΔPET



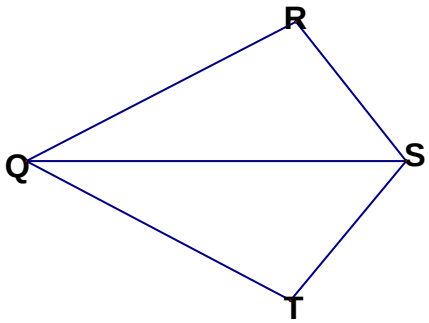
STATEMENT	REASON

PROOF #5:

Given: $\overline{QR} \perp \overline{RS}$, $\overline{ST} \perp \overline{TQ}$

$\overline{RS} \cong \overline{ST}$

Prove: $\Delta QRS \cong \Delta QTS$



STATEMENT	REASON

PROOF #1:

Given: $\overline{RA} \cong \overline{RE}$

$\overline{EC} \cong \overline{AC}$

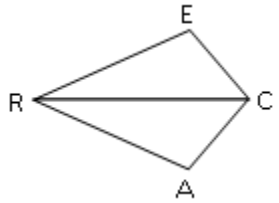
Prove: $\Delta REC \cong \Delta RAC$

PLAN:

1.

2.

3.



STATEMENT	REASON
1.	1.
2.	2. Reflexive Property
3.	3.

PROOF #1:

Given: $\overline{RA} \cong \overline{RE}$

$\overline{EC} \cong \overline{AC}$

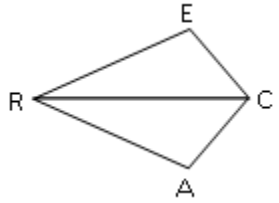
Prove: $\Delta REC \cong \Delta RAC$

PLAN:

1.

2.

3.



STATEMENT	REASON
1.	1.
2.	2. Reflexive Property
3.	3.

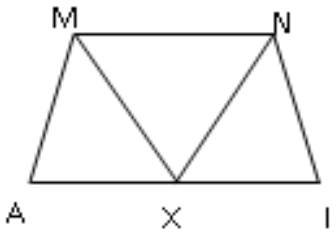
PROOF #2:

Given: X is the ***midpoint*** of $\overline{AI}$ **PLAN:**

$\angle A \cong \angle I$ 1.

$\overline{MA} \cong \overline{IN}$ 2.

Prove: $\Delta MAX \cong \Delta NIX$ 3.



STATEMENT	REASON
1.	1.
2.	2. A _____ creates two _____ _____.
3.	3.

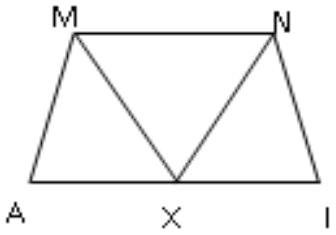
PROOF #2:

Given: X is the ***midpoint*** of $\overline{AI}$ **PLAN:**

$\angle A \cong \angle I$ 1.

$\overline{MA} \cong \overline{IN}$ 2.

Prove: $\Delta MAX \cong \Delta NIX$ 3.



STATEMENT	REASON
1.	1.
2.	2. A _____ creates two _____ _____.
3.	3.

PROOF #3:

Given: $\overline{AT}$ ***bisects*** $\angle LAS$

$\overline{LA} \cong \overline{AS}$

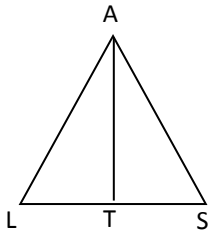
Prove: ΔATL ≅ ΔATS

PLAN:

1.

2.

3.



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

PROOF #3:

Given: $\overline{AT}$ ***bisects*** $\angle LAS$

$\overline{LA} \cong \overline{AS}$

Prove: ΔATL ≅ ΔATS

PLAN:

1.

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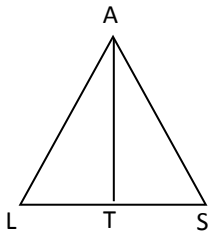


STATEMENT	REASON
1.	1.
2.	2.
3.	3.
4.	4.

PROOF #4:

Given: $\overline{PT} \perp \overline{AE}$

$\overline{AT} \cong \overline{TE}$

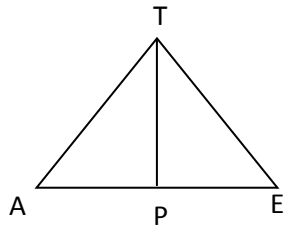
Prove: ΔPAT ≅ ΔPET

PLAN:

1.

2.

3.



STATEMENT	REASON

PROOF #5:

Given: $\overline{QR} \perp \overline{RS}$, $\overline{ST} \perp \overline{TQ}$

$\overline{RS} \cong \overline{ST}$

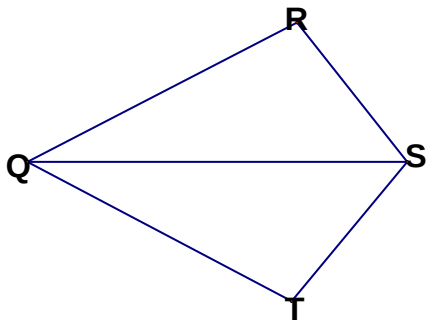
Prove: $\overline{QT} \cong \overline{QR}$

PLAN:

1.

2.

3.



STATEMENT	REASON