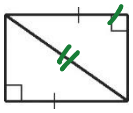
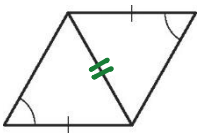
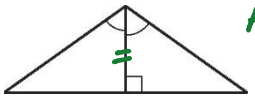
Name: Key

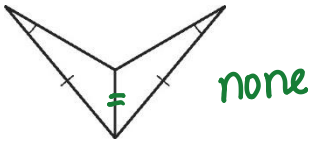
PROOF DAY 2 – HOMEWORK

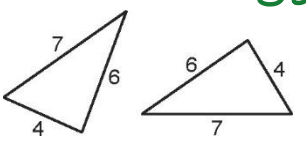
Which postulate, if any, can be used to prove the pair of triangles congruent.

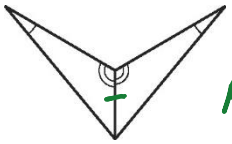
1.  HL

2.  none

3.  ASA

4.  none

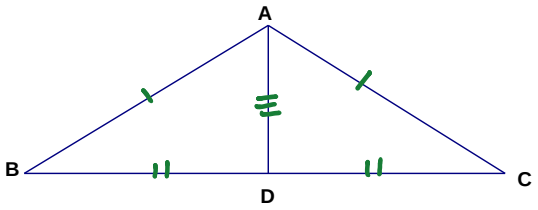
5.  SSS

6.  AAS

7. Given:
$\overline{AC} \cong \overline{AB}$
D is the midpoint of $\overline{BC}$

Prove:

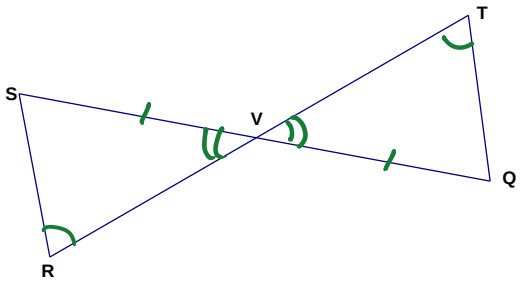
$\Delta ADB \cong \Delta$ ADC by SSS



8. Given:
V is the midpoint of $\overline{SQ}$
$\angle R \cong \angle T$

Prove:

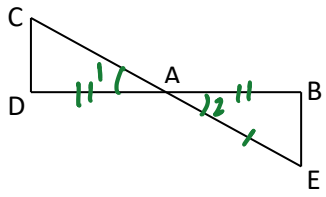
$\Delta SVR \cong \Delta$ QVT by AAS



10. Given: $\overline{AC} \cong \overline{AE}$

A is the midpoint of $\overline{DB}$

Prove: ΔACD ≅ ΔAEB

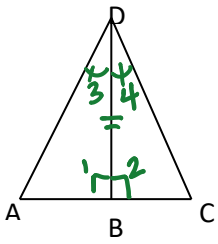


(S) 1. $\overline{AC} \cong \overline{AE}$	1. Given
2. A is midpt of $\overline{DB}$	2. Given
(A) 3. $\angle 1 \cong \angle 2$	3. def of vertical ∠s
(S) 4. $\overline{AD} \cong \overline{AB}$	4. def of midpt
5. $\Delta ACD \cong \Delta AEB$	5. SAS

11. Given: $\overline{DB} \perp \overline{AC}$

$\overline{DB}$ bisects ∠ADC

Prove: $\triangle DAB \cong \triangle DCB$



1. $\overline{DB} \perp \overline{AC}$	1. Given
2. $\overline{DB}$ bisects ∠ADC	2. Given
3. ∠1, ∠2 right ∠s	3. if ⊥ → ∠s
(A) 4. $\angle 1 \cong \angle 2$	4. if right ∠s → ∠s ≅
(A) 5. $\angle 3 \cong \angle 4$	5. def of bisects
(S) 6. $\overline{DB} \cong \overline{DB}$	6. reflexive prop.
7. $\Delta DAB \cong \Delta DCB$	7. ASA