

NAME

QUARTER

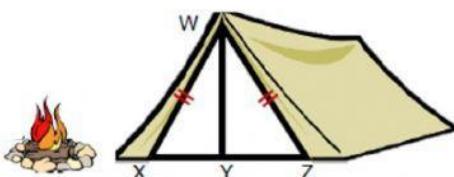
GRADE & SECTION

DATE

Activity: Proving Triangle Congruence

Complete the two column proof.

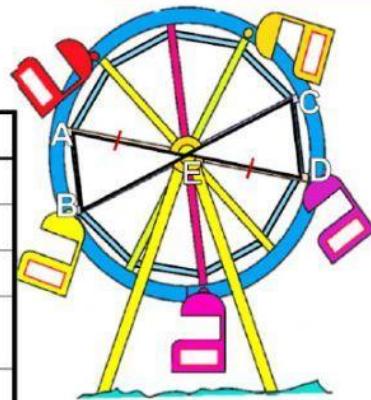
1. Given: $\overline{WX} \cong \overline{WZ}$
 Y is the midpoint of \overline{XZ}
Prove: $\angle X \cong \angle Z$



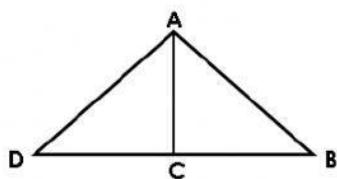
Statements	Reasons
1. $\overline{WX} \cong \overline{WZ}$	a. Given
2. Y is the midpoint of \overline{XZ}	b. Given
3. $XY = YZ$	c. []
4. $\overline{XY} \cong \overline{YZ}$	d. []
5. $\overline{WY} \cong \overline{WY}$	e. []
6. $\Delta WXY \cong \Delta WZY$	f. []
7. $\angle X \cong \angle Z$	g. []

2. Given: $\overline{AE} \cong \overline{DE}$
 E is the midpoint of \overline{BC} .
Prove: $\Delta AEB \cong \Delta DEC$

Statements	Reasons
1. $\overline{AE} \cong \overline{DE}$	a. Given
2. E is the midpoint of \overline{BC}	b. Given
3. []	c. Definition of midpoint
4. []	d. Definition of congruence
5. []	e. []
6. $\Delta AEB \cong \Delta DEC$	f. []

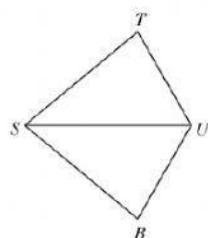


3. Given: $\overline{DC} \cong \overline{BC}$ and $\overline{AC} \perp \overline{DB}$ at C
Prove: $\Delta ACD \cong \Delta ACB$



Statements	Reasons
1. $\overline{DC} \cong \overline{BC}$	a. Given
2. $\overline{AC} \perp \overline{DB}$ at C	b. Given
3. $\angle ACD$ and $\angle ACB$ are right angles	c. []
4. $\angle ACD \cong \angle ACB$	d. []
5. []	e. []
6. $\Delta ACD \cong \Delta ACB$	f. []

4. Given: $\angle TUS \cong \angle BUS$ and $\angle TSU \cong \angle BSU$
Prove: $\Delta UST \cong \Delta USB$



Statements	Reasons
1. $\angle TUS \cong \angle BUS$ and $\angle TSU \cong \angle BSU$	a. Given
2. []	b. []
6. $\Delta UST \cong \Delta USB$	c. []

How many attempts? ____.
How well did you do?



I HAVE TO...