

NAME

QUARTER

GRADE & SECTION

DATE

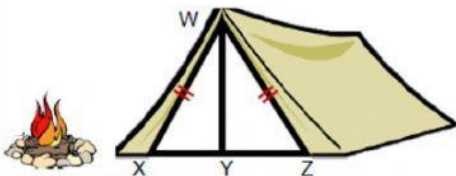
Activity: Proving Triangle Congruence

Complete the two column proof.

1. Given: $\overline{WX} \cong \overline{WZ}$

Y is the midpoint of $\overline{XZ}$

Prove: $\angle X \cong \angle Z$



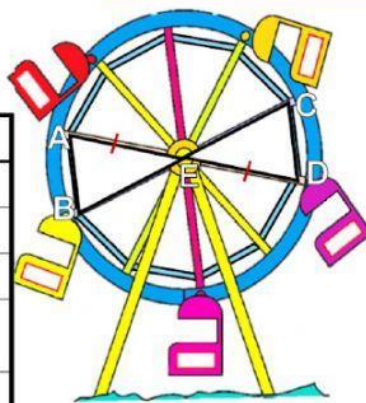
Statements	Reasons
1. $\overline{WX} \cong \overline{WZ}$	a. Given
2. Y is the midpoint of $\overline{XZ}$	b. Given
3. $XY = YZ$	c.
4. $\overline{XY} \cong \overline{YZ}$	d.
5. $\overline{WY} \cong \overline{WY}$	e.
6. $\triangle WXY \cong \triangle WZY$	f.
7. $\angle X \cong \angle Z$	g.

2. Given: $\overline{AE} \cong \overline{DE}$

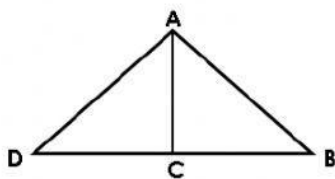
E is the midpoint of $\overline{BC}$.

Prove: $\triangle AEB \cong \triangle DEC$

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. $\triangle AEB \cong \triangle DEC$	f.

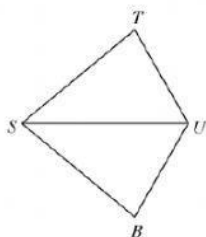


3. Given: $\overline{DC} \cong \overline{BC}$ and $\overline{AC} \perp \overline{DB}$ at C
Prove: $\triangle ACD \cong \triangle ACB$



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. $\triangle ACD \cong \triangle ACB$	f.

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



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

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



Need help!



Just OK!



Splendid

I HAVE TO...