

**Math 2 Unit 3 Worksheet 3D**

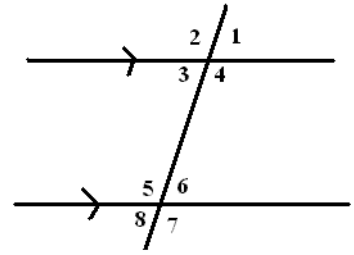
**Parallels**

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Per: \_\_\_\_\_

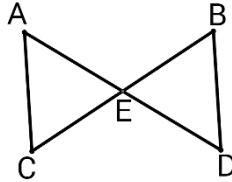
If two lines are cut by a transversal, then

- Alternate interior angles are congruent;  $\angle 5 \cong \angle 4, \angle 6 \cong \angle 3$
- Corresponding angles are congruent;  $\angle 8 \cong \angle 3, \angle 5 \cong \angle 2, \angle 7 \cong \angle 4, \angle 6 \cong \angle 1$



1. Given:  $\overline{AC} \parallel \overline{BD}, \overline{CB}$  bisects  $\overline{AD}$

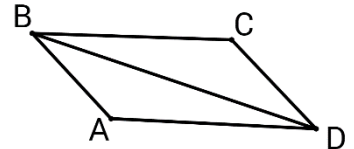
Prove:  $\triangle CEA \cong \triangle$  \_\_\_\_\_



Statement	Reason
1.	1. Given
2.	2. Alternate interior angles are $\cong$
3.	3. Definition of segment bisector
4.	4. AAS $\cong$

2. Given:  $\overline{BA} \parallel \overline{CD}$

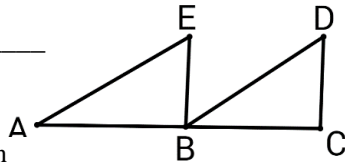
Prove:  $\triangle ABD \cong \triangle$  \_\_\_\_\_



Statement	Reason
1. $\overline{BA} \parallel \overline{CD}$	1.
2. $\angle ABD \cong \angle CDB,$ $\angle CBD \cong \angle ADB$	2.
3. $\overline{BD} \cong \overline{BD}$	3.
4. $\triangle ABD \cong \triangle$ _____	4.

3. Given:  $\overline{BE} \parallel \overline{CD}, \overline{AE} \parallel \overline{BD}$ , B is the midpoint of  $\overline{AC}$

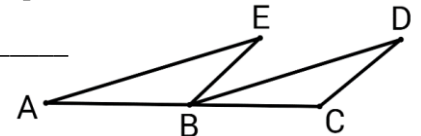
Prove:  $\triangle EBA \cong \triangle$  \_\_\_\_\_



Statement	Reason

4. Given:  $\overline{BE} \parallel \overline{CD}$ , B midpoint of  $\overline{AC}$ ,  $\overline{BE} \cong \overline{CD}$

Prove:  $\triangle ABE \cong \triangle$  \_\_\_\_\_

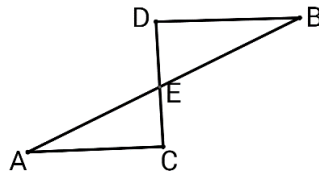


Statement	Reason

**5. FIX THE ERRORS**

Given:  $\angle C \cong \angle D$

Prove:  $\triangle ACE \cong \triangle BDE$



Statement	Reason
1. $\angle C \cong \angle D$	1. Given
2. $\angle A \cong \angle B$	2. Alternate interior $\angle$ s are $\cong$
3. $\angle AEC \cong \angle DEB$	3. Vertical $\angle$ s $\cong$
4. $\triangle ACE \cong \triangle BDE$	4. AAA $\cong$