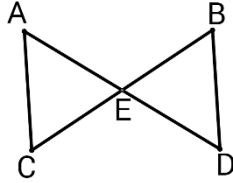


Math 2 Unit 3 Worksheet 3B
Vertical Angles are Congruent

Name: _____
 Date: _____ Per: _____

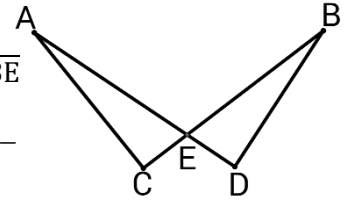
When two lines intersect and form an “x” shape, the vertical angles are congruent.

1. Given: $\overline{AE} \cong \overline{DE}, \overline{CE} \cong \overline{BE}$
 Prove: $\triangle CEA \cong \triangle$ _____



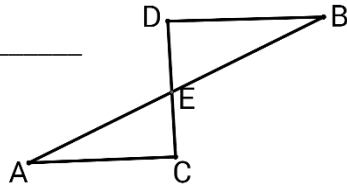
Statement	Reason
1.	1. Given
2.	2. Vertical Angles are \cong
3. $\triangle CEA \cong$ _____	3.

2. Given: $\angle C \cong \angle D, \overline{AE} \cong \overline{BE}$
 Prove: $\triangle ACE \cong \triangle$ _____



Statement	Reason
1. $\angle C \cong \angle D, \overline{AE} \cong \overline{BE}$	1.
2. $\angle CEA \cong \angle DEB$	2.
3. $\triangle ACE \cong$ _____	3.

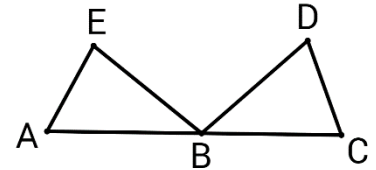
3. Given: $\angle A \cong \angle B, \overline{AE} \cong \overline{EB}$
 Prove: $\triangle ACE \cong \triangle$ _____



Statement	Reason
1.	1.
2.	2.
3.	3.

4. FIND THE ERRORS

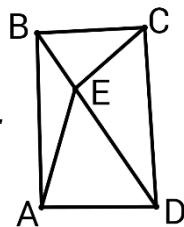
- Given: $\overline{AB} \cong \overline{CB}, \overline{AE} \cong \overline{CD}$
 Prove: $\triangle ABE \cong \triangle CBD$



Statement	Reason
1. $\overline{AB} \cong \overline{CB}, \overline{AE} \cong \overline{CD}$	1. Given
2. $\angle ABE \cong \angle DBC$	2. Vertical Angles are \cong
3. $\triangle ABE \cong \triangle CBD$	3. SSA \cong

5. FIND THE ERRORS

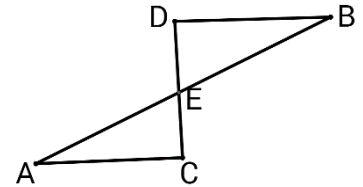
- Given: $\angle BAE \cong \angle CDE, \angle ABE \cong \angle DCE$
 Prove: $\triangle ABE \cong \triangle DCE$



Statement	Reason
1. $\angle BAE \cong \angle CDE$ $\angle ABE \cong \angle DCE$	1. Given
2. $\angle AEB \cong \angle DEC$	2. Vertical angles are \cong
3. $\triangle ABE \cong \triangle DCE$	3. AAA \cong

6. FIND THE ERRORS

- Given: $\overline{DE} \cong \overline{BE}, \overline{AE} \cong \overline{CE}$
 Prove: $\triangle AEC \cong \triangle BED$



Statement	Reason
1. $\overline{DE} \cong \overline{BE}, \overline{AE} \cong \overline{CE}$	1. Given
2. $\angle E \cong \angle E$	2. Vertical angles are \cong
3. $\triangle AEC \cong \triangle BED$	3. SSS \cong