4.4/4.5d - Proving Triangles Congruent

1) Check and Correct Assignment
2) Look over 2 triangle proofs
3) Partner Work on Proofs
4) HW Summary (only one this week!)

Pg. 245 #7, 13, 21, 42-44
Pg. 256 #4-6, 13, 22
4.4/4.5 Triangle Proofs

Given: \( \overline{AB} \cong \overline{AD} \)
\( \overline{BC} \cong \overline{DC} \)
Prove: \( \triangle BCA \cong \triangle DCA \)

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4.4/4.5 Triangle Proofs

Given: \( \angle SRT \) and \( \angle WVT \) are right angles
\( T \) is the midpoint of \( \overline{RV} \)
Prove: \( \triangle RST \cong \triangle VWT \)

<table>
<thead>
<tr>
<th>Statements</th>
<th>Reasons</th>
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<tbody>
<tr>
<td>1. ( \angle SRT ) and ( \angle WVT ) are right angles</td>
<td>1. Given</td>
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<tr>
<td>2. ( T ) is the midpoint of ( \overline{RV} )</td>
<td>2. Given</td>
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<td>3. ( \angle SRT \cong \angle WVT )</td>
<td>3. All right angles are congruent</td>
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<tr>
<td>4. ( \overline{RT} \cong \overline{TV} )</td>
<td>4. Def. of midpoint</td>
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<tr>
<td>5. ( \angle RTS \cong \angle WTV )</td>
<td>5. Vertical Angles are congruent</td>
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<tr>
<td>6. ( \triangle RST \cong \triangle VWT )</td>
<td>6. ASA</td>
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4.4/4.5 Triangle Proofs

Given: Ray HK bisects \( \angle GKN \)
\( \angle HGK \cong \angle HNK \)
Prove: \( \triangle GHK \cong \triangle NHK \)

Given: \( \overline{AD} \parallel \overline{BC} \)
\( \overline{DE} \cong \overline{EB} \)
Prove: \( \triangle AED \cong \triangle CEB \)

Assignment (Due Tuesday, November 26)

1) Pg. 263 #8, 9, 11
- keep given statement
- work on proving triangles congruent
- write a complete two column proof (half sheet)
- leave a little bit of room under
  Prove and last statement
- do not look in the back of the book please

2) Beginning of Class: Quiz on Triangle Congruences

3) Retake Test 3 by Wednesday, December 3