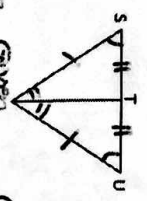
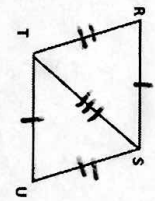
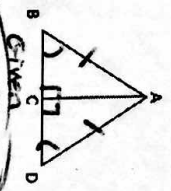
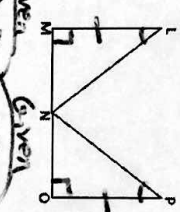
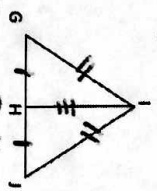
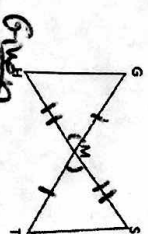

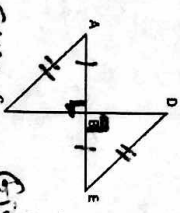


# Homework 6.2: Triangle Proofs

Math 3

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

<p>1. Given: <math>RS \cong RU, TS \cong TU, \angle S \cong \angle U, \angle SRT \cong \angle URT</math> Prove: <math>\triangle RST \cong \triangle RUT</math></p>  <p>Given: <math>RS \cong RU, TS \cong TU, \angle S \cong \angle U, \angle SRT \cong \angle URT</math></p> <p><math>\triangle RST \cong \triangle RUT</math> (SAS)</p> <p>Why is this given given? *could use ASA I given...</p>	<p>2. Given: <math>RS \cong UT, RT \cong SU</math> Prove: <math>\triangle RST \cong \triangle UTS</math></p>  <p>Given: <math>RS \cong UT, RT \cong SU</math></p> <p><math>\triangle RST \cong \triangle UTS</math> (SSS)</p>
<p>3. Given: <math>AB \cong AD, \angle B \cong \angle D, \angle ACB \cong \angle ACD</math> are <math>90^\circ</math> Prove: <math>\triangle ABC \cong \triangle ADC</math></p>  <p>Given: <math>AB \cong AD, \angle B \cong \angle D, \angle ACB \cong \angle ACD</math></p> <p><math>\triangle ABC \cong \triangle ADC</math> (SAA)</p>	<p>4. Given: <math>LM \cong PO, \angle L \cong \angle P, \angle M \cong \angle O</math> are <math>90^\circ</math> Prove: <math>\triangle LMN \cong \triangle PON</math></p>  <p>Given: <math>LM \cong PO, \angle L \cong \angle P, \angle M \cong \angle O</math></p> <p><math>\triangle LMN \cong \triangle PON</math> (ASA)</p>

<p>5. Given: H is the midpoint of <math>\overline{GI}, \overline{GI} \cong \overline{IH}</math> Prove: <math>\triangle GHI \cong \triangle IHI</math></p>  <p>Given: H is midpt of <math>\overline{GI}, \overline{GI} \cong \overline{IH}</math></p> <p><math>\triangle GHI \cong \triangle IHI</math> (SAS)</p>	<p>6. Given: M is the midpoint of <math>\overline{GT}, \overline{GM} \cong \overline{MT}</math> Prove: <math>\triangle GMH \cong \triangle TMS</math></p>  <p>Given: M is midpt of <math>\overline{GT}, \overline{GM} \cong \overline{MT}</math></p> <p><math>\triangle GMH \cong \triangle TMS</math> (SAS)</p>
<p>7. Given: <math>\angle B \cong \angle D</math> are <math>90^\circ, \overline{AE}</math> bisects <math>\overline{BD}</math> Prove: <math>\triangle ABC \cong \triangle EDC</math></p>  <p>Given: <math>\angle B \cong \angle D</math> are <math>90^\circ, \overline{AE}</math> bisects <math>\overline{BD}</math></p> <p><math>\triangle ABC \cong \triangle EDC</math> (ASA)</p>	<p>8. Given: <math>\overline{DC} \perp \overline{AE}, \overline{DE} \cong \overline{AC}, B</math> is the midpoint of <math>\overline{AE}</math> Prove: <math>\triangle BDE \cong \triangle BCA</math></p>  <p>Given: <math>\overline{DC} \perp \overline{AE}, \overline{DE} \cong \overline{AC}, B</math> is midpt of <math>\overline{AE}</math></p> <p><math>\triangle BDE \cong \triangle BCA</math> (HL)</p>