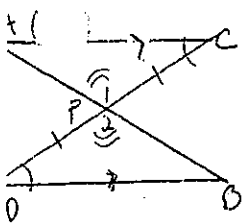


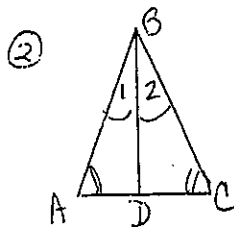
Integrated Math II

Review of Chp. 8 Sec. 4+5



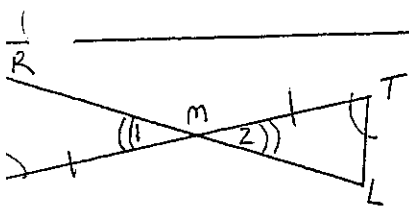
ASA
 Given: $\overline{AC} \parallel \overline{DB}$, \overline{AB} bisects \overline{DC}
 Prove: $\triangle ACP \cong \triangle BDP$

- | | |
|--|---------------------------|
| ① $\overline{AC} \parallel \overline{DB}$ | ① given |
| ② $\angle D$ & $\angle C$ are alt-int. | ② def of alt-int \angle |
| ③ $\angle D \cong \angle C$ | ③ alt-int \angle thm |
| ④ $\angle 1$ & $\angle 2$ are vert. \angle | ④ def of vert. \angle |
| ⑤ $\angle 1 \cong \angle 2$ | ⑤ vert. \angle thm |
| ⑥ \overline{AB} bisects \overline{DC} | ⑥ given |
| ⑦ $\overline{DP} \cong \overline{PC}$ | ⑦ def of seg. bisect. |
| ⑧ $\triangle ACP \cong \triangle BDP$ | ⑧ ASA |



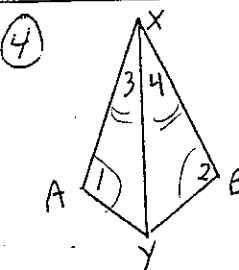
Given: \overline{BD} bisects $\angle ABC$
 $\angle A \cong \angle C$
 Prove: $\triangle ABD \cong \triangle CBD$

- | | |
|--|---------------------------|
| ① \overline{BD} bisects $\angle ABC$ | ① given |
| ② $\angle 1 \cong \angle 2$ | ② def of \angle bisect. |
| ③ $\angle A \cong \angle C$ | ③ given |
| ④ $\overline{BD} \cong \overline{BD}$ | ④ ref. prop \cong |
| ⑤ $\triangle ABD \cong \triangle CBD$ | ⑤ AAS |



Given: $\angle S \cong \angle T$
 \overline{RL} bisects \overline{ST}
 Prove: $RM = ML$

- | | |
|--|-------------------------|
| ① $\angle S \cong \angle T$ | ① given |
| ② \overline{RL} bisect. \overline{ST} | ② given |
| ③ $\overline{SM} \cong \overline{MT}$ | ③ def of seg. bisect. |
| ④ $\angle 1$ & $\angle 2$ are vert. \angle | ④ def of vert. \angle |
| ⑤ $\angle 1 \cong \angle 2$ | ⑤ vert. \angle thm |
| ⑥ $\triangle RMS \cong \triangle LMT$ | ⑥ ASA |
| ⑦ $\overline{RM} \cong \overline{ML}$ | ⑦ c.p.t.c |
| ⑧ $RM = ML$ | ⑧ def of \cong |



Given: $\overline{AX} \perp \overline{AY}$, $\overline{BX} \perp \overline{BY}$
 \overline{XY} bisects $\angle AXB$
 Prove: $AX = BX$

- | | |
|--|---------------------------|
| ① $\overline{AX} \perp \overline{AY}$ | ① given |
| ② $\angle 1$ is a rt. \angle | ② def of \perp |
| ③ $\overline{BX} \perp \overline{BY}$ | ③ given |
| ④ $\angle 2$ is a rt. \angle | ④ def of \perp |
| ⑤ $m\angle 1 = m\angle 2 = 90^\circ$ | ⑤ subst. prop = |
| ⑥ $\angle 1 \cong \angle 2$ | ⑥ def of \cong |
| ⑦ \overline{XY} bisects $\angle AXB$ | ⑦ given |
| ⑧ $\angle 3 \cong \angle 4$ | ⑧ def of \angle bisect. |
| ⑨ $\triangle AXY \cong \triangle BXY$ | ⑨ AAS |
| ⑩ $\overline{AX} \cong \overline{BX}$ | ⑩ c.p.t.c |
| ⑪ $AX = BX$ | ⑪ def of \cong |