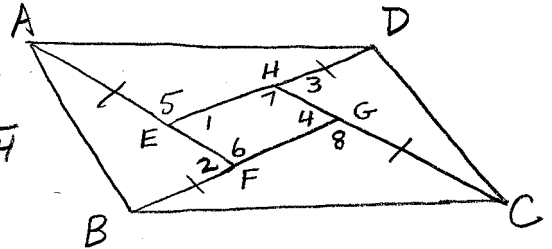


Mr. Hansen

Geom. HW due 11/12/2008
[excerpt]

p. 267 #23

23. Given: $EFGH$ is a $\square$
 $\overline{AE} \cong \overline{BF} \cong \overline{CG} \cong \overline{DH}$
Prove: $ABCD$ is a $\square$



1. $EFGH$ is a $\square$
2. $\overline{AE} \cong \overline{BF} \cong \overline{CG} \cong \overline{DH}$
3. $\overline{EF} \cong \overline{GH}$, $\overline{EH} \cong \overline{FG}$
4. $\overline{EF} \parallel \overline{GH}$, $\overline{EH} \parallel \overline{FG}$
5. $\angle 1 \cong \angle 2$, $\angle 3 \cong \angle 4$
6. $\angle 5 \cong \angle 6$, $\angle 7 \cong \angle 8$
7. $\angle 1 \cong \angle 4$, $\angle 6 \cong \angle 7$
8. $\angle 2 \cong \angle 3$
9. $\angle 5 \cong \angle 8$
10. $\overline{AF} \cong \overline{CH}$, $\overline{DE} \cong \overline{BG}$
11. $\triangle AFB \cong \triangle CHD$
12. $\triangle DEA \cong \triangle BGC$
13. $\overline{AB} \cong \overline{DC}$, $\overline{AD} \cong \overline{BC}$
14. $ABCD$ is a $\square$

1. G
2. G
3. Prop. $\square$: opp. sides $\cong$
4. Prop. $\square$: opp. sides $\parallel$
5. $\parallel \Rightarrow$ alt. int. $\angle s \cong$
6. $\parallel \Rightarrow$ corr. $\angle s \cong$
7. Prop. $\square$: opp. $\angle s \cong$
8. Trans. (5, 7)
9. Trans. (6, 7)
10. Add. Prop. (2, 3)
11. SAS (10, 8, 2)
12. SAS (10, 9, 2)
13. CPCTC from 11, 12
14. Both prs. of opp. sides $\cong$

$\square$