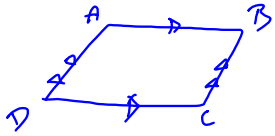
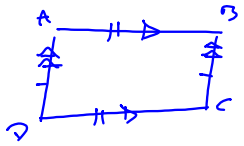
6.2 Parallelograms ▱

Quadrilaterals with both pairs of opposite sides parallel



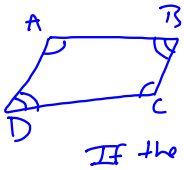
$\overline{AB} \parallel \overline{CD}$

$\overline{AD} \parallel \overline{BC}$



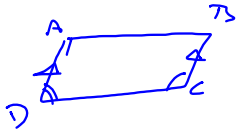
If the quadrilateral is a ▱ then opposite sides are $\cong$

If ▱ then $\overline{AB} \cong \overline{CD}$, $\overline{AD} \cong \overline{BC}$



If the quadrilateral is a ▱ then the opposite $\angle$'s are $\cong$

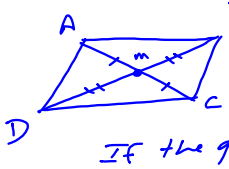
If ▱ then $\angle A \cong \angle C$, $\angle D \cong \angle B$



If the quadrilateral is a ▱ then consecutive $\angle$'s are supplmnt

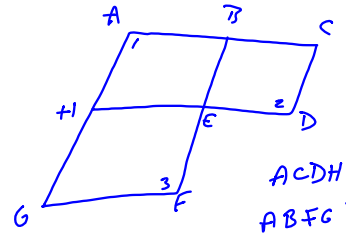
If ▱ then $m\angle C + m\angle D = 180$

$m\angle A + m\angle D = 180$



If the quadrilateral is a ▱ then the diagonals bisect each other

If ▱ then $\overline{Am} \cong \overline{mC}$, $\overline{Bm} \cong \overline{mD}$



ACDH is a ▱

ABFG is a ▱

Prove $\angle 2 \cong \angle 3$

1. $\triangle EDH$ is $\perp$ ABFG is $\square$	Given
2. $\angle 1 \cong \angle 2$	Opposite $\angle$s in a $\square$
3. $\angle 1 \cong \angle 3$	Opposite $\angle$s in a $\square$
4 $\angle 2 \cong \angle 3$	Transitive Prop of $\cong$

P 333 – 335

2-44 even