## Proof Practice Test 2

Name $\qquad$
On your own sheet of clean notebook paper, do a 2-column proof for each problem below.

Figure 1


Figure 2


Figure 3


1. In figure 1 , you are given that $\overline{A D}$ bisects $\angle C D B$ and $\overline{C D} \cong \overline{B D}$ Prove: $\angle C=\angle B$
2. In figure 2, you are given that C is the midpoint of $\overline{A E}$ and $\angle A B C=\angle E D C$ Prove: $\angle A=\angle E$
3. In figure 3, you are given that X is the midpoint of both $\overline{B C}$ and $\overline{A D}$.

Prove: $\mathrm{AC}=\mathrm{BD}$

## Proof 4

Given: $\overline{F K}=\overline{F H} ; \angle H=\angle K$
Prove: $\quad \mathrm{JH}=\mathrm{GK}$


## Proof 5

Given: $\quad \mathrm{BD}=\mathrm{EC}$

$$
\mathrm{AD}=\mathrm{AE}
$$

Prove:

$$
\triangle B A E \cong \triangle C A D
$$



