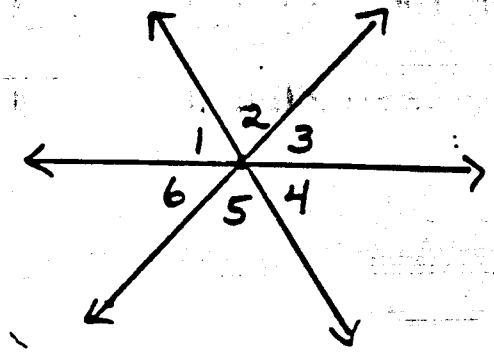
Worksheet 2-6 Proofs #1

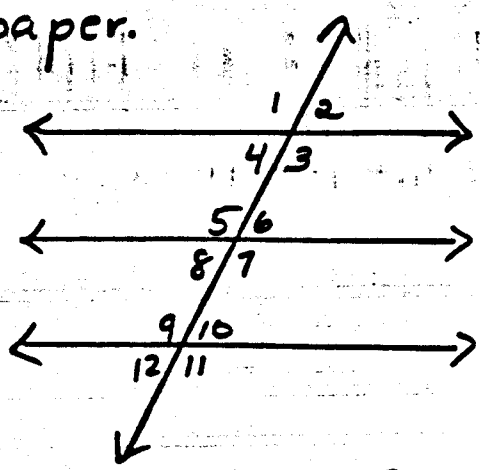
Name _____

Mark your diagrams. Write a 2 column proof on a separate sheet of paper.

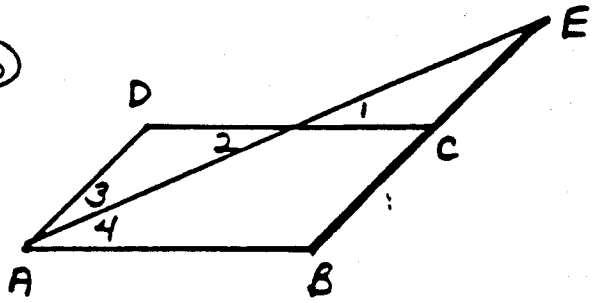
Geom., Per. ____

① 

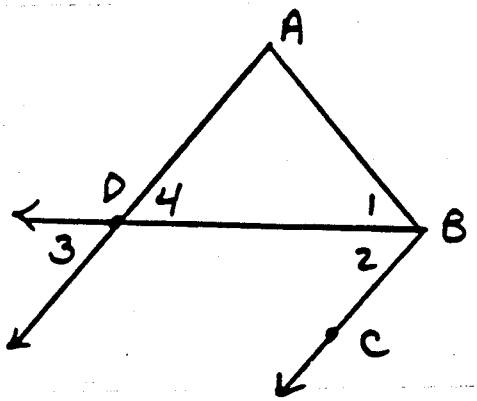
Given: $\angle 3 \cong \angle 5$
Prove: $\angle 6 \cong \angle 2$

② 

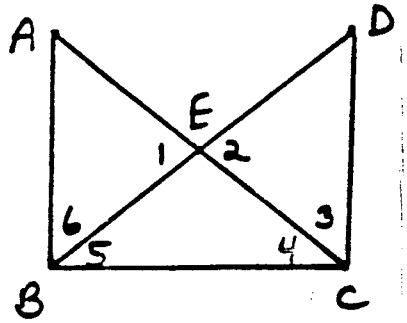
Given: $\angle 3 \cong \angle 5$
$\angle 7 \cong \angle 9$
Prove: $\angle 1 \cong \angle 11$

③ 

Given: $\overrightarrow{AE}$ bisects $\angle DAB$
$\angle 2 \cong \angle 3$
Prove: $\angle 1 \cong \angle 4$

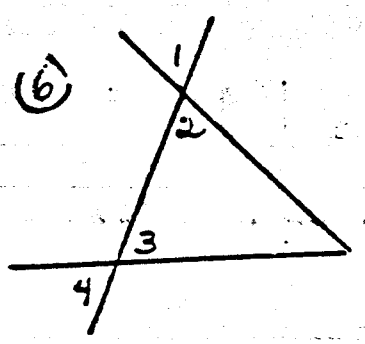
④ 

Given: $\overrightarrow{BD}$ bisects $\angle ABC$
$\angle 2 \cong \angle 3$
Prove: $\angle 1 \cong \angle 4$

⑤ 

Given: $\overrightarrow{BE}$ bisects $\angle ABC$
CE bisects $\angle DCB$
$\angle 6 \cong \angle 1$
$\angle 2 \cong \angle 3$
Prove: $\angle 5 \cong \angle 4$

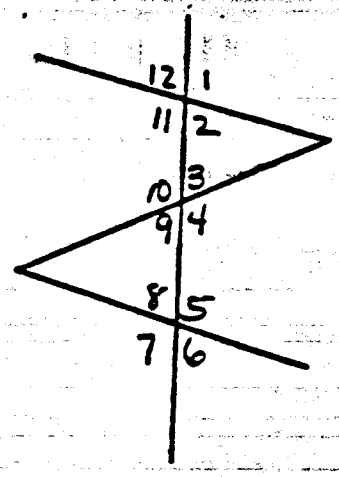
⑥



Given: $\angle 2 \cong \angle 3$

Prove: $\angle 1 \cong \angle 4$

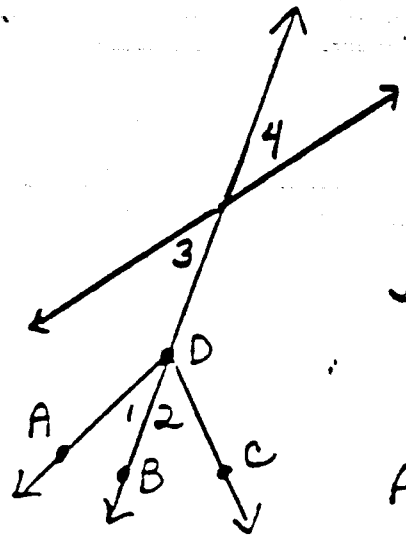
⑦



Given:
$\angle 2 \cong \angle 4$
$\angle 10 \cong \angle 6$

Prove:
$\angle 12 \cong \angle 8$

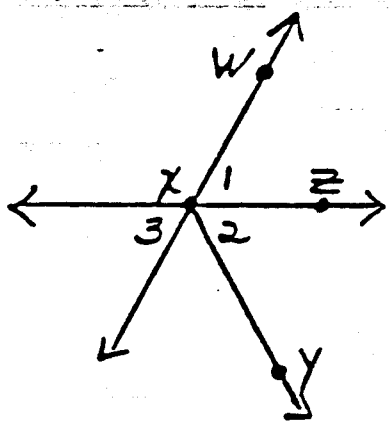
⑧



Given: $\overrightarrow{DB}$ bisects $\angle ADC$
$\angle 1 \cong \angle 3$

Prove: $\angle 2 \cong \angle 4$

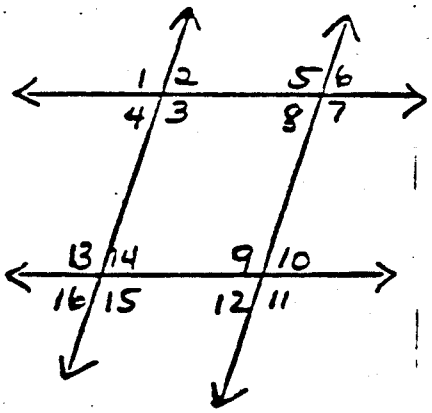
⑨



Given: $\overrightarrow{XZ}$ bisects $\angle WXY$

Prove: $\angle 2 \cong \angle 3$

⑩



Given: $\angle 3 \cong \angle 13$
$\angle 15 \cong \angle 9$

Prove: $\angle 1 \cong \angle 11$