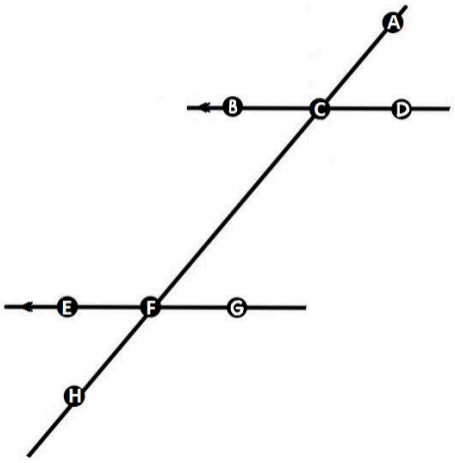
Math II — Angle Proofs Name _____



Prove the following with a two-column proof.

1) $< ACD \cong < HFE$

Statements	Reasons

2) $< HFG \cong < CFE$

Statements	Reasons

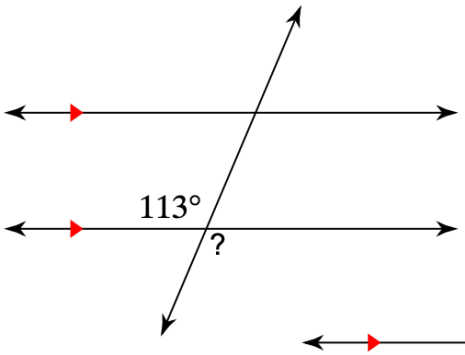
3) $< BCF \cong < GFC$

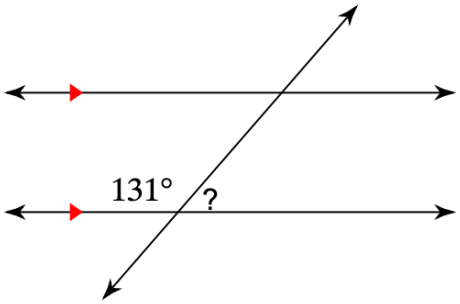
Statements	Reasons

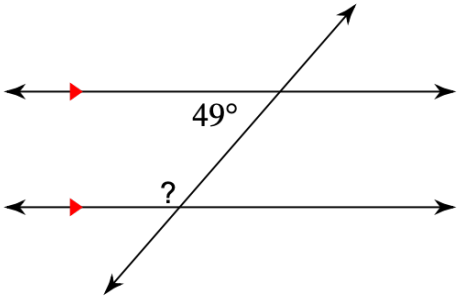
4) $< DCF \cong < GFH$

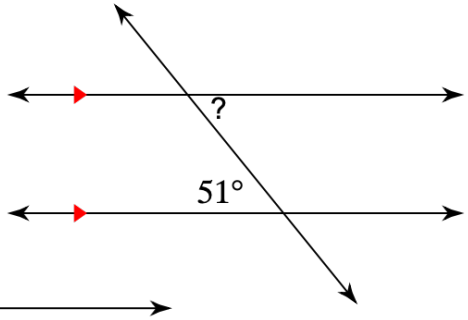
Statements	Reasons

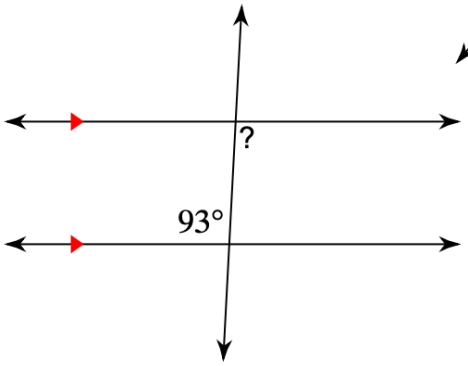
Name the type of angle pair that is marked, then find the missing measurement.

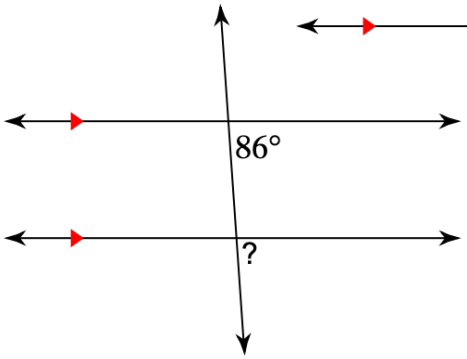


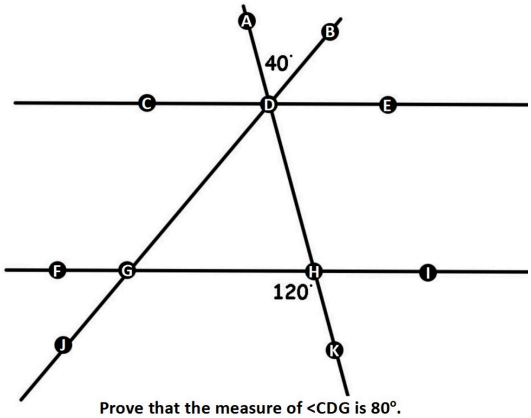








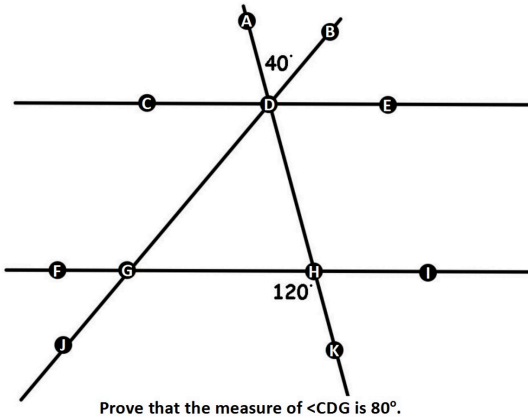




Prove that the measure of <CDG is 80°.

Proof #1

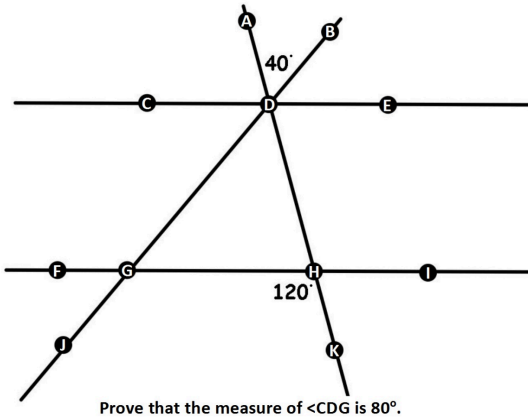
Statements	Reasons
m<GHK = 120°	
m<CDH = 120°	
m<ADB = 40°	
m<GDH = 40°	
m<CDG = 80°	



Prove that the measure of <CDG is 80°.

Proof #2

Statements	Reasons
m<GHK = 120°	
m<KHI = 60°	
m<HDE = 60°	
m<CDA = 60°	
m<ADB = 40°	
m<CDG = 80°	



Prove that the measure of <CDG is 80°.

Proof #3

Statements	Reasons
m<GHK = 120°	
m<DHI = 120°	
m<ADE = 120°	
m<ADB = 40°	
m<BDE = 80°	
m<CDG = 80°	

Reason Bank

$r_{y\text{-axis}}$	$r_{x\text{-axis}}$	$R_{90°}$	$R_{180°}$
given	$T_{H\to D}$	$T_{D\to G}$	$T_{G\to H}$

linear pair: 120° + 60° = 180°

linear trio: 60° + 40° + 80° = 180°

120° - 40° = 80°