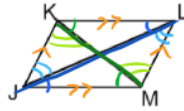


Complete the following proofs

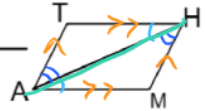
1. Given: JKLM is a parallelogram  
 Prove:  $\angle LMJ \cong \angle JKL$  and  $\angle KJM \cong \angle MLK$

Statement	Reason
JKLM is a $\square$ $\overline{KJ} \parallel \overline{LM}$ & $\overline{KL} \parallel \overline{JM}$	Given Def. of $\square$
$\angle JLK \cong \angle LJM$	Alt. Int. $\angle$ 's Thm.
$\angle JLM \cong \angle LJK$	Alt. Int. $\angle$ 's Thm.
$\overline{LJ} \cong \overline{LJ}$	Reflexive Property
$\triangle JLK \cong \triangle LJM$	ASA
$\angle LMJ \cong \angle JKL$	CPCTC
$\angle LKM \cong \angle JMK$	Alt. Int. $\angle$ 's Thm.
$\angle LMK \cong \angle JKM$	Alt. Int. $\angle$ 's Thm.
$\overline{KM} \cong \overline{MK}$	Reflexive Prop.
$\triangle JKL \cong \triangle LMJ$	ASA
$\angle KJM \cong \angle MLK$	CPCTC



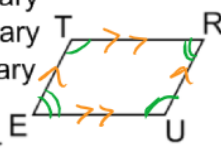
2. Given: MATH is a parallelogram  
 Prove:  $\overline{AT} \cong \overline{HM}$  and  $\overline{TH} \cong \overline{MA}$

Statement	Reason
MATH is a parallelogram	Given
$\overline{AT} \parallel \overline{MH}$ and $\overline{TH} \parallel \overline{AM}$	Def. of parallelogram.
$\angle THA \cong \angle MAH$	Alt. Int. $\angle$ 's Thm.
$\angle TAH \cong \angle MHA$	Alt. Int. $\angle$ 's Thm.
$\overline{AH} \cong \overline{HA}$	Reflexive Prop.
$\triangle HAT \cong \triangle AHM$	ASA
$\overline{AT} \cong \overline{HM}$	CPCTC
$\overline{TH} \cong \overline{MA}$	CPCTC



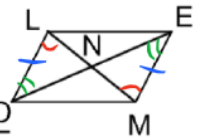
3. Given: TRUE is a parallelogram  
 Prove:  $\angle T$  and  $\angle R$  are supplementary  
 $\angle R$  and  $\angle U$  are supplementary  
 $\angle U$  and  $\angle E$  are supplementary  
 $\angle E$  and  $\angle T$  are supplementary

Statement	Reason
TRUE is a $\square$	Given
$\overline{ET} \parallel \overline{RU}$ & $\overline{TR} \parallel \overline{EU}$	Def. of $\square$
$\angle T$ and $\angle R$ are supp.	Same Side Int. $\angle$ 's Thm.
$\angle U$ and $\angle E$ are supp.	Same Side Int. $\angle$ 's Thm.
$\angle R$ and $\angle U$ are supp.	Same Side Int. $\angle$ 's Thm.
$\angle E$ and $\angle T$ are supp.	Same Side Int. $\angle$ 's Thm.

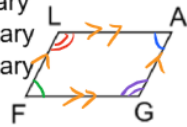


4. Given: LEMO is a parallelogram  
 Prove:  $\overline{LN} \cong \overline{MN}$  and  $\overline{ON} \cong \overline{EN}$

Statement	Reason
LEMO is a parallelogram	Given
$\overline{LO} \parallel \overline{EM}$ and $\overline{OM} \parallel \overline{LE}$	Def. of parallelogram.
$\angle MLO \cong \angle LME$	Alt. Int. $\angle$ 's Thm.
$\angle LOE = \angle MEO$	Alt. Int.
$\overline{LO} \cong \overline{ME}$	$\square \rightarrow$ Opp. Sides of are $\cong$
$\triangle LON \cong \triangle MEN$	ASA
$\overline{LN} \cong \overline{MN}$	CPCTC
$\overline{EN} \cong \overline{ON}$	CPCTC

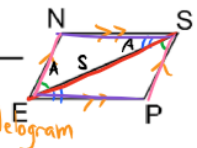


5. Given: FLAG is a parallelogram  
 Prove:  $\angle F$  and  $\angle L$  are supplementary  
 $\angle L$  and  $\angle A$  are supplementary  
 $\angle A$  and  $\angle G$  are supplementary  
 $\angle G$  and  $\angle F$  are supplementary



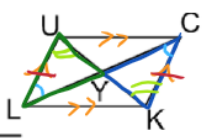
Statement	Reason
FLAG is a parallelogram	Given
$\overline{LF} \parallel \overline{AG}$ & $\overline{LA} \parallel \overline{FG}$	Def. of Parallelogram
$\angle F$ and $\angle L$ are supp.	Same side int. $\angle$ 's
$\angle L$ and $\angle A$ are supp.	Same side int. $\angle$ 's
$\angle A$ and $\angle G$ are supp.	Same side int. $\angle$ 's
$\angle G$ and $\angle F$ are supp.	Same side int. $\angle$ 's

6. Given: PENS is a parallelogram  
 Prove:  $\overline{PE} \cong \overline{NS}$  and  $\overline{EN} \cong \overline{SP}$



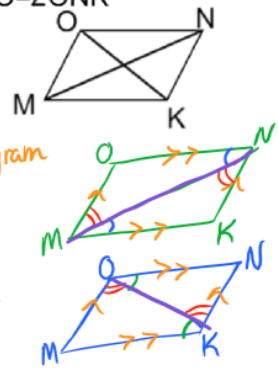
Statement	Reason
PENS is a parallelogram	Given
$\overline{EN} \parallel \overline{PS}$ & $\overline{NS} \parallel \overline{EP}$	Def. of parallelogram
$\angle NES \cong \angle PSE$	Alt. Int. $\angle$ 's
$\angle NSE \cong \angle PES$	Alt. Int. $\angle$ 's
$\overline{ES} \cong \overline{SE}$	Reflexive Prop.
$\triangle NES \cong \triangle PSE$	ASA
$\overline{PE} \cong \overline{NS}$	CPCTC
$\overline{EN} \cong \overline{SP}$	CPCTC

7. Given: LUCK is a parallelogram  
 Prove:  $\overline{LY} \cong \overline{CY}$  and  $\overline{UY} \cong \overline{KY}$



Statement	Reason
LUCK is a parallelogram	Given
$\overline{LU} \parallel \overline{CK}$ & $\overline{UL} \parallel \overline{LK}$	Def. of parallelogram
$\angle LUK \cong \angle CKU$	Alt. Int. $\angle$ 's
$\angle ULC \cong \angle KCL$	Alt. Int. $\angle$ 's
$\overline{UL} \cong \overline{KC}$	$\square \rightarrow$ opp. sides $\cong$
$\triangle LUY \cong \triangle CKY$	ASA
$\overline{LY} \cong \overline{CY}$	CPCTC
$\overline{UY} \cong \overline{KY}$	CPCTC

8. Given: JKLM is a parallelogram  
 Prove:  $\angle MON \cong \angle NKM$  and  $\angle KMO \cong \angle ONK$



Statement	Reason
JKLM is a parallelogram	Given
$\overline{MO} \parallel \overline{KN}$ & $\overline{ON} \parallel \overline{MK}$	Def. of Parallelogram
$\angle OMN \cong \angle KNM$	Alt. Int. $\angle$ 's
$\angle KMN \cong \angle ONM$	Alt. Int. $\angle$ 's
$\overline{MN} \cong \overline{NM}$	Reflexive Prop.
$\triangle MON \cong \triangle NKM$	ASA
$\angle MOK = \angle NKO$	Alt. Int. $\angle$ 's
$\angle NOK \cong \angle MKO$	Alt. Int. $\angle$ 's
$\overline{OK} \cong \overline{KO}$	Reflexive Prop.
$\triangle MOK \cong \triangle NKO$	ASA
$\angle MON \cong \angle NKM$	CPCTC
$\angle KMO \cong \angle ONK$	CPCTC