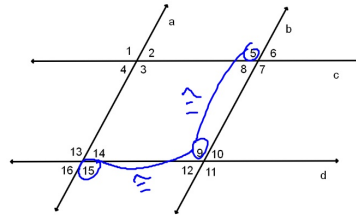


1. Write a proof.

Given: $a \parallel b$ and $c \parallel d$

Prove: $\angle 5 \cong \angle 15$

Start by planning it out.



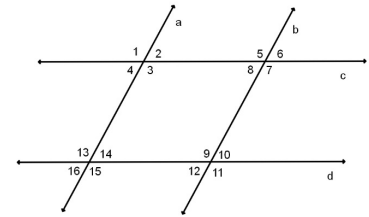
Statement	Reason
$a \parallel b$ and $c \parallel d$	given
$\angle 5 \cong \angle 9$	Corresponding
$\angle 9 \cong \angle 15$	Alt. int.
$\angle 5 \cong \angle 15$	trans.

2. Write a proof.

Given: $a \parallel b$ and $c \parallel d$

Prove: $\angle 11$ and $\angle 4$ are supplementary.

Start by planning it out.



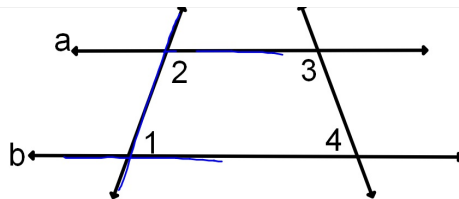
Statement	Reason
$a \parallel b$ and $c \parallel d$	given
$\angle 11 \cong \angle 10$	alternate
$\angle 10 \cong \angle 4$ suppl	(S.S.I.)
$\angle 11 \cong \angle 4$ suppl	Substitution

3. Write a proof.

Given: $a \parallel b$ and $\angle 1 \cong \angle 4$

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

Start by planning it out.



Statement	Reason
$a \parallel b$ and $\angle 1 \cong \angle 4$	Given
$\angle 1$ suppl $\angle 2$	S.S.I.
$\angle 3$ suppl $\angle 4$	"
$\angle 2 \cong \angle 3$	$\cong$ suppl thm.