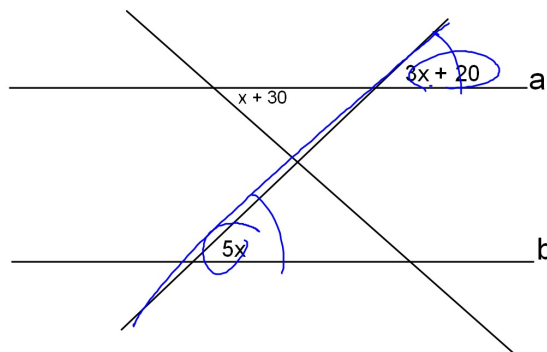


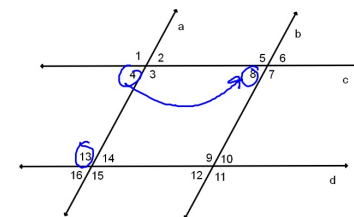
1. Find the value for x that makes $a \parallel b$



$$\begin{aligned} 3x + 20 &= 5x \\ -3x &\quad -3x \\ \hline 20 &= 2x \\ \hline x &= 10 \end{aligned}$$

2. Given: $a \parallel b$ and $c \parallel d$
Prove: $\angle 13$ & $\angle 8$ are supplementary

One of many possible proofs
Start by planning it out



Statement	Reason
1. $a \parallel b$ and $c \parallel d$	1. Given
2. $\angle 13 \cong \angle 4$	2. SSI
3. $\angle 4 \cong \angle 8$	3. corr $\angle$ s
4. $\angle 13 \cong \angle 8$	4. Subst.

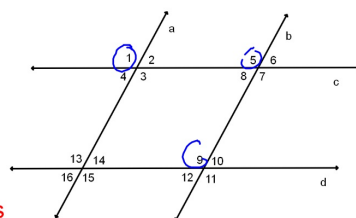
3. Write a proof.

Given: $c \parallel d$ & $\angle 1 \cong \angle 9$

Prove: $a \parallel b$

Start by planning it out.

One of many possible proofs



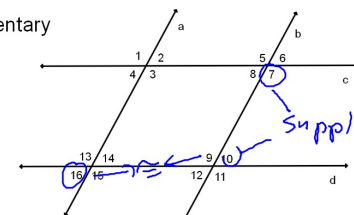
Statement	Reason
1. $c \parallel d$ & $\angle 1 \cong \angle 9$	1. Given
2. $\angle 9 \cong \angle 5$	2. Corr $\angle$ s
3. $\angle 1 \cong \angle 5$	3. Subst
4. $a \parallel b$	4. corr $\angle$ s $\cong \therefore$ lines $\parallel$

4. Given: $a \parallel b$ and $\angle 7$ & $\angle 16$ are supplementary

Prove: $c \parallel d$

Start by planning it out

One of many possible proofs



Statement	Reason
1. $a \parallel b$ and $\angle 7$ & $\angle 16$ are supplementary	1. Given
2. $\angle 16 \cong \angle 10$	2. Alt ext $\angle$ s
3. $\angle 7$ & $\angle 10$ suppl	3. Subst.
4. $c \parallel d$	4. SSI and suppl $\therefore$ lines $\parallel$