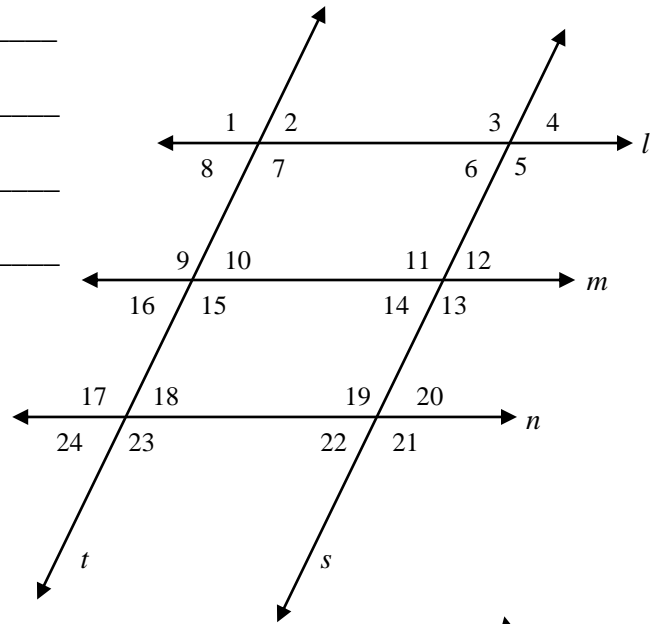


1) Given $l \parallel m \parallel n$ and $s \parallel t$, and $m\angle 1 = 143^\circ$, find

- | | | |
|----------------------|----------------------|----------------------|
| $m\angle 2 =$ _____ | $m\angle 11 =$ _____ | $m\angle 20 =$ _____ |
| $m\angle 3 =$ _____ | $m\angle 12 =$ _____ | $m\angle 21 =$ _____ |
| $m\angle 4 =$ _____ | $m\angle 13 =$ _____ | $m\angle 22 =$ _____ |
| $m\angle 5 =$ _____ | $m\angle 14 =$ _____ | $m\angle 23 =$ _____ |
| $m\angle 6 =$ _____ | $m\angle 15 =$ _____ | $m\angle 24 =$ _____ |
| $m\angle 7 =$ _____ | $m\angle 16 =$ _____ | |
| $m\angle 8 =$ _____ | $m\angle 17 =$ _____ | |
| $m\angle 9 =$ _____ | $m\angle 18 =$ _____ | |
| $m\angle 10 =$ _____ | $m\angle 19 =$ _____ | |



Use the diagram on the right to answer the rest of the questions on this page.

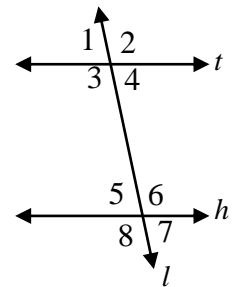
2) Given: $t \parallel h$

Prove: $\angle 3 \cong \angle 6$

Statement	Reason
1. $t \parallel h$	Given
2. $\angle 3 \cong \angle 8$	Corresponding \angle s post.
3. $\angle 8 \cong \angle 6$	
4. $\angle 3 \cong \angle 6$	

3) Given: $t \parallel h$

Prove: $\angle 2 \cong \angle 8$



4) Given: $t \parallel h$

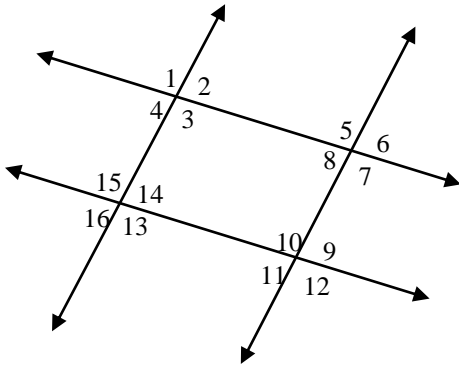
Prove: $\angle 3$ and $\angle 5$ are supplementary

Statement	Reason
1. $t \parallel h$	
2. $\angle 3 \cong \angle 8$	
3. $m\angle 3 = m\angle 8$	
4. $\angle 8$ and $\angle 5$ are supp.	
5. $m\angle 8 + m\angle 5 = 180^\circ$	
6. $m\angle 3 + m\angle 5 = 180^\circ$	
7. $\angle 3$ and $\angle 5$ are supp.	

5) Given: $t \parallel h$

Prove: $\angle 2$ and $\angle 7$ are supplementary

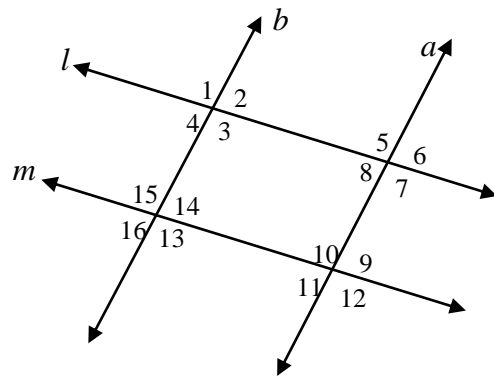
6) Given that $m\angle 4 = 3x + 10$ and $m\angle 12 = 2x + 30$, find the value of x , $m\angle 4$, $m\angle 10$.



Use the diagram on the right to answer the following two questions. Write a proof and show all necessary steps.

6) Given: $l \parallel m$ and $a \parallel b$

Prove: $\angle 1 \cong \angle 12$



7) Given: $a \parallel b, l \parallel m$

Prove: $m\angle 15$ and $m\angle 6$ are supplementary