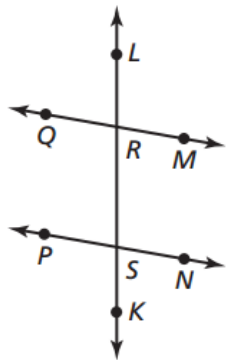


HW #2-9

For #1 and 2, complete the two-column proofs. Make sure that every statement is paired with a reason.

1. **Given** $\angle QRS$ and $\angle PSR$ are supplementary.

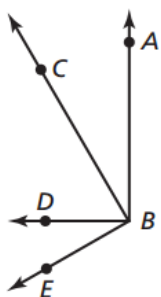
Prove $\angle QRL \cong \angle PSR$



Statements	Reasons
1. $\angle QRS$ supp $\angle PSR$	1.
2.	2. supp $\rightarrow$ add to 180°
3. $\angle QRL$ and $\angle QRS$ form a linear pair	3. def. of linear pair (formed in the diagram)
4.	4. linear pair $\rightarrow$ supp
5. $m\angle QRL + m\angle QRS = m\angle QRS + m\angle PSR$	5.
6.	6. Subtraction Prop. =
7. $\angle QRL \cong \angle PSR$	7.

2. **Given** $\angle ABD$ is a right angle.
 $\angle CBE$ is a right angle.

Prove $\angle ABC \cong \angle DBE$

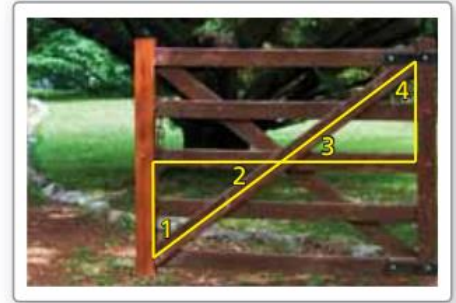


Statements	Reasons
1. $\angle ABD$ and $\angle CBE$ are right angles	1. Given
2. $m\angle ABD = 90^\circ$ and $m\angle CBE = 90^\circ$	2.
3. $m\angle CBE = m\angle CBD + m\angle DBE$ and _____	3. Angle Add. Post.
4. $90^\circ = m\angle CBD + m\angle DBE$ and _____	4.
5.	5. Trans. Prop. =
6.	6. Subtraction Prop. =
7.	7. $= \leftrightarrow \cong$

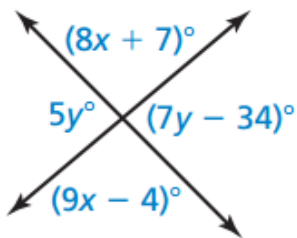
3. Write the ENTIRE two-column yourself!

Given $\angle 1$ and $\angle 3$ are complementary.
 $\angle 2$ and $\angle 4$ are complementary.

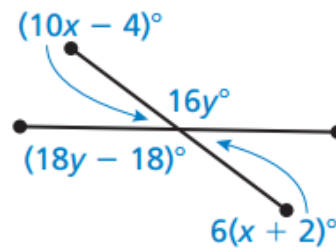
Prove $\angle 1 \cong \angle 4$



4. Find the values of x and y .



5. Find the values of x and y .



6. Find the values of x and y .

