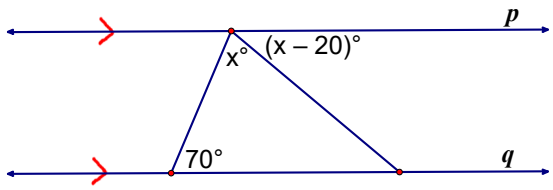
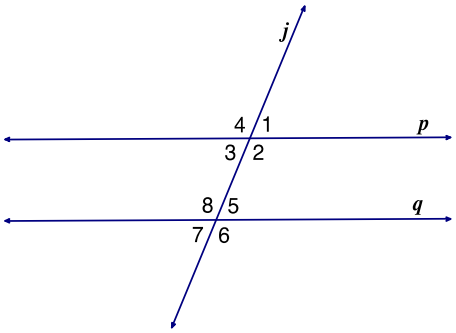
3-2 & 3-4:
Parallel & Perpendicular Line Proofs

Warm Up: Use the parallel line postulates/theorems to find the value of x.



EX 1) Given: $p \parallel q$

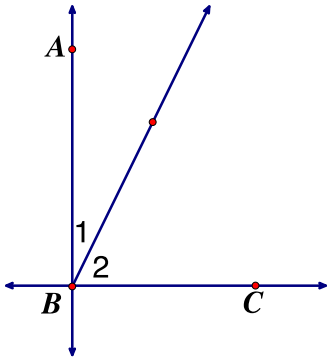
Prove: $\angle 1 \cong \angle 7$



Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.

EX 2) Given: $\overleftrightarrow{AB} \perp \overleftrightarrow{BC}$

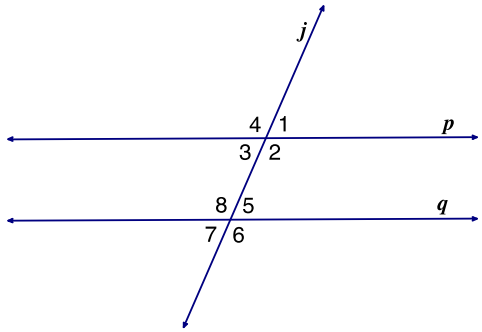
Prove: $\angle 1$ and $\angle 2$ are complementary



Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

EX 3) Given: $p \parallel q$

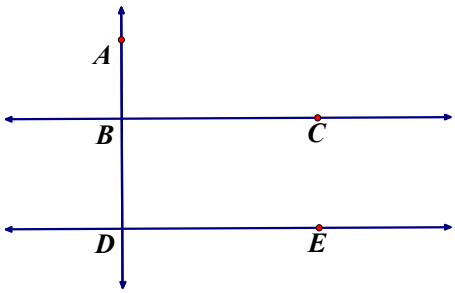
Prove: $m\angle 1 + m\angle 6 = 180°$



Statement	Reason

EX 4) Given: $\overleftrightarrow{BC} \parallel \overleftrightarrow{DE}$, $\overleftrightarrow{AB} \perp \overleftrightarrow{BC}$

Prove: $\overleftrightarrow{AB} \perp \overleftrightarrow{DE}$



Statement	Reason