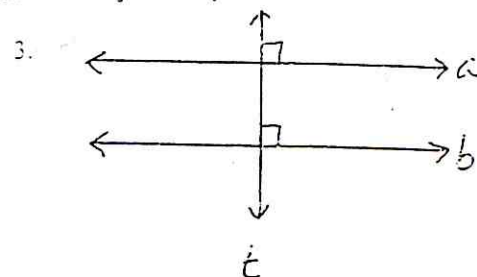
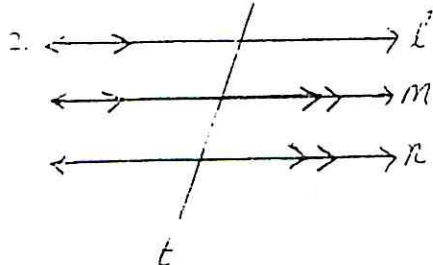
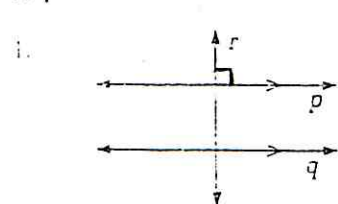


In problems 1 – 3, what conclusion can be drawn from the diagram? State the theorem that justifies your conclusion.



In problems 4 – 9, tell a) what type of angles they are.

b) tell whether the lines are parallel. If yes, justify with a theorem or postulate. If no, explain why.

4. $m\angle 1 = 35^\circ$; $m\angle 3 = 145^\circ$

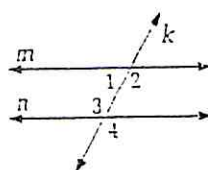
5. $m\angle 2 = 120^\circ$; $m\angle 4 = 60^\circ$

6. $m\angle 2 = 115^\circ$; $m\angle 3 = 115^\circ$

7. $m\angle 1 = 55^\circ$; $m\angle 4 = 125^\circ$

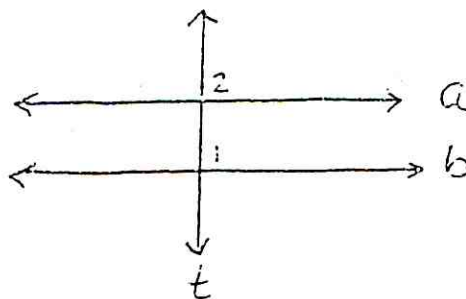
8. $m\angle 1 = (2x)^\circ$; $m\angle 3 = (2x)^\circ$

9. $m\angle 1 = x^\circ$; $m\angle 3 = (180 - x)^\circ$



10. Prove the following theorem. "In a plane, if a line is $\perp$ to one of two $\parallel$ lines, then it is $\perp$ to the other."

Given: $a \parallel b$, $a \perp t$
Prove: $b \perp t$



S	J
1. $a \parallel b$, $a \perp t$	1.
2. $\angle 2$ is a right $\angle$	2.
3. $m\angle 2 = 90^\circ$	3.
4. $\angle 1 \cong \angle 2$	4.
5. $m\angle 1 = m\angle 2$	5.
6. $m\angle 1 = 90^\circ$	6.
7. $\angle 1$ is a right $\angle$	7.
8. $b \perp t$	8.