Write the appropriate symbols or statement in each column of the chart.

	IMPLICATION	CONVERSE	INVERSE	CONTRAPOSITIVE
1	If it snows, then no school			
2			If John doesn't study, then he doesn't get good grades	
3		If 2 <i>x</i> =6, then <i>x</i> =3	(Hint: Use ≠)	
4				If $a^2 \ge 0$, then $a \ge 0$
5	$A \rightarrow B$			
6		$X \to Y$		
7			$\sim P \rightarrow Q$	
8				$C \rightarrow \sim F$

or each of the following statements, identify its relationship to the implication. Choose from converse, inverse, contrapositive, or no special relationship to the implication. State whether each is true or false.

- Remember, if the implication is not in if-then form, rewrite it before you start.
- 9. <u>Implication:</u> All pelicans eat fish.
 - a) If a bird is a pelican, then it eats fish.
 - b) If a creature eats fish, then it is a pelican.
 - c) If a bird is not a pelican, then it doesn't eat fish.
 - d) If a creature doesn't eat fish, then it is not a pelican.
- 10. Implication: All Siths have red light sabers.
 - a) If a person is Sith, then they have a red light saber.
 - b) If a person is not a Sith, then they do not have a red light saber.
 - c) If a person does not have a red light saber, then they are not a Sith.
 - d) If a person has a red light saber, then they are a Sith.