Notes 5.4 – Negate, Inverses, Contrapositives

1. Negation

	If	Then
conditional	p	q
converse	q	p
inverse	not p	not q
contrapositive	not q	not p

negation: not p

2. Inverse

3. Contrapositive

1. Statement that has opposite truth values.

Statement: Houston is the capital of Texas. False

Negation: Houston is not the capital of Texas

Statement: Lines m & n are not perpendicular. True

Negation: Lines m & n are perpendicular

False

2. Conditional statement with both the hypothesis and conclusion negated.

3. Conditional statement with hypothesis and conclusion switched and negated.

Conditional: If a figure is a square, then it is a rectangle.

Converse: If it is a rectangle then the figure is a square.

Inverse: If the figure is not a square, then it is not a rectangle

Contrapositive: If it is not a rectangle, then the figure is not a square