## Conditional Statements

If- then
Statements

## Conditional Statement

Hypothesis --- if statement, p

Conclusion --- then statement, q

If p, then q.

## Converse

- Switch the hypothesis & conclusion parts of a conditional statement.
- If q, then p.
- May or may not be true

Conditional:
If it is Saturday, then Donna plays soccer.
Converse:
If Donna plays soccer, then it is Saturday.

## Contrapositive

- Negate, then switch the hypothesis & conclusion of a conditional statement.
- If not q, then not p.
- Is always true.

Conditional:
If it is Saturday, then Donna plays soccer.
Contrapositive:
 If Donna is not playing soccer, then it is not Saturday.

## Inverse

- Negate the hypothesis & conclusion of a conditional statement.
- If not p, then not q.

Conditional:
If it is Saturday, then Donna plays soccer.
Inverse:
If it is not Saturday, then Donna is not playing soccer.

## Write the converse, contrapositive and inverse.

If it is raining, then we will do geometry.

Converse: If we do geometry, then it is raining.

Contrapositive: If we don't do geometry, then it is not raining.

Inverse: If it is not raining, then we will not do geometry.