

## Warm-Up

1. If today is Monday, then tomorrow is Tuesday. True or False
2. If today is Tuesday, then tomorrow is Monday. True or False
3. All children over 6 years of age attend school. Amy is 7. Does Amy attend school? Yes
4. Some people like to eat fish. Frank is a person. Does Frank like to eat fish? Maybe
5. Do the words all and every have the same meaning or different meanings?



Integrated 2

Page 1

## 1-6 Deductive Reasoning

If a student is at Cedarcrest, then the student is in Duvall.

If a student is in Duvall, then the student is in King County.

State a conclusion

Page 2

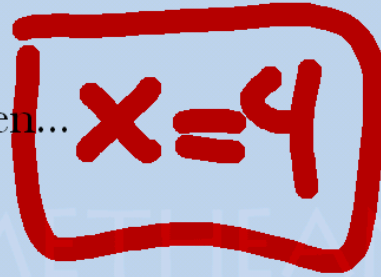
## Deductive Reasoning

Using facts, definitions, logic, and accepted rules and properties to reach a conclusion.

### Conclusion

The "then" part of an if-then statement.

If  $x = 5 - 1$  and  $5 - 1 = 4$ , then...



A hand-drawn red box containing the equation  $x = 4$ .

**State a conclusion**

## Converse Statement

A statement in which the if-then parts are switched.

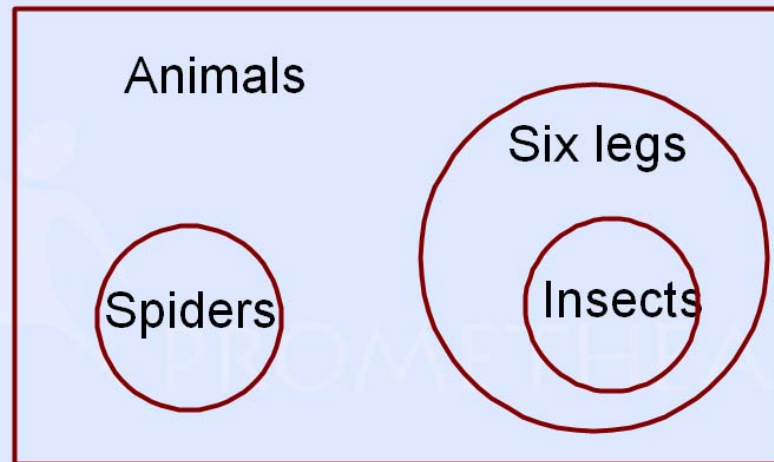
Example:

If a student is in Duvall, then the student is at Cedarcrest.

False

# Venn Diagrams

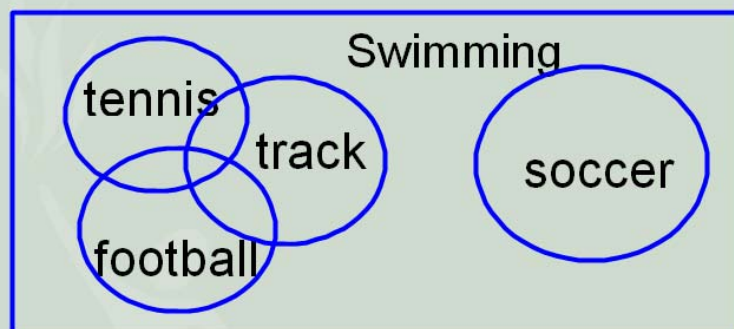
Shows the relationships between groups.



Page 5

Example 1: Use the Venn diagram to show the sports that Joe's friends participate in.

Tell whether each statement is True or False.



- All of Joe's friends play soccer and tennis. **F**
- Some play soccer and tennis. **F**
- If a friend plays football, then he also plays tennis and track. **F**
- At least one friend swims, runs track, plays football and tennis. **T**
- Is the converse of (c) true or false? **F**

Page 6



## Integrated 2

### 1-6 Deductive Reasoning

#### Homework

- Read pg. 38-41
- Pg. 41 #2-12, 14-20
- Pg. 655 Skill 26