1. You need at least $250 to buy the stereo.

$$S \geq 250$$

2. The elevator can hold up to 2000 lbs.

$$E \leq 2,000$$

3. She can work no more than 24 hours per week.

$$W \leq 24$$

4. The can weigh a maximum of 20,000 lbs to cross the bridge.

$$W \leq 20,000$$

5. You need to be a minimum of 50 inches tall to ride the roller coaster.

$$T \geq 50$$

6. Water is liquid between 32º F and 212º F.

$$W > 32 \text{ AND } W < 212$$

$$32 < W < 212$$

7. To get a discount ticket you must be younger than 10 or older than 60.

$$a < 10 \text{ or } a > 60$$

AND   OR

AND

For dinner Eric said that he will eat a salad AND a hamburger.

- Eric ate only a salad. Is his original statement true or false? False

- Eric ate only a hamburger. Is his original statement true or false? False

- Eric ate both a salad and a hamburger. Is his original statement true or false? True

A statement involving the word AND is only true if:
BOTH parts are true.

Amani said that tonight she would study OR listen to music.

- Amani only studied. Is her statement true or false?   *True*

- Amani only listened to music. Is her statement true or false? *True*

- Amani studied and listened to music. Is her statement true   *True*
  or false?

  A statement involving the word OR is true if:
  - Only one of the statmens is true
    or
  - If both statements are true