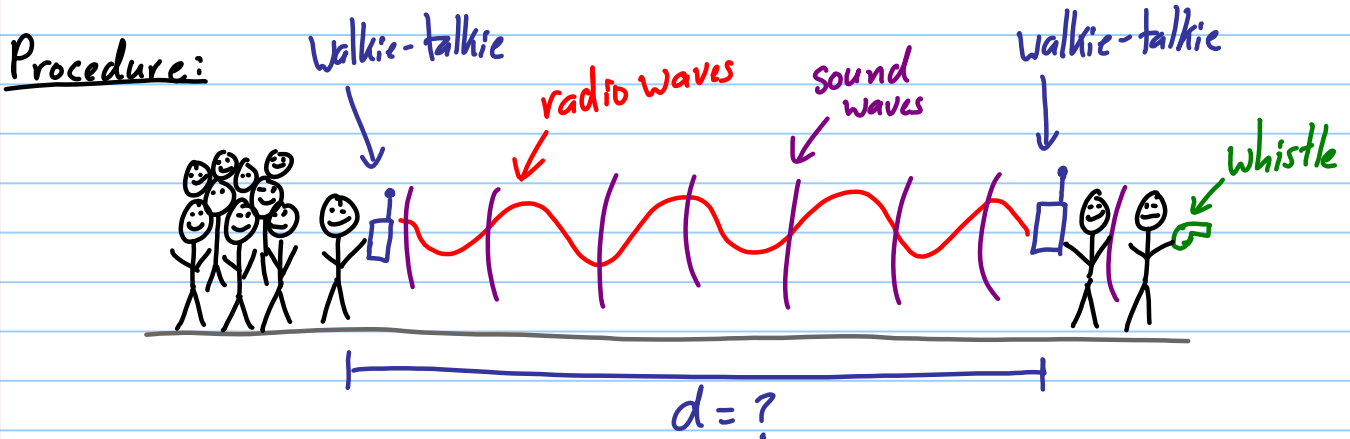# Speed of Sound

Purpose: To measure the speed of sound and compare it to a known value.

Procedure:

① Blow whistle into walkie-talkie

② Time the difference in whistle sounds.

③ Measure distance.

Calculations:

1) Calculate our measured speed of sound.

2) The actual speed of sound can be found from the formula:

$$V_{sound} = 331.4 + 0.6T$$

where T is the temperature in degrees Celcius. Find the actual speed of sound based on today's forcasted temperature.

3) Calculate the percentage difference between our measured value and the actual value for the speed of sound.

4) There are many possible errors associated with this lab. Show that the delay caused by the time of travel of the radio waves is negligible.