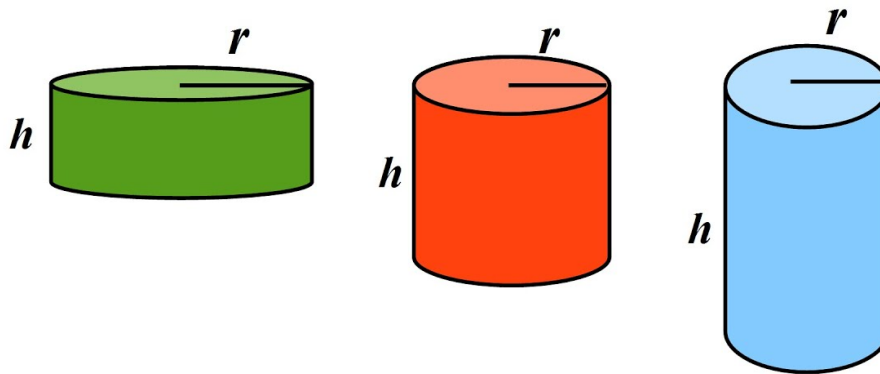**Problem:** suppose we want to design a cylindrical can that uses the minimal amount of material. The can's volume must be 900cm^3 (around 1 quart), and it will be made of aluminum of a fixed thickness. What dimensions should the can have?

Warm-up: For a cylindrical can of height h and radius r, what are its **volume** and **surface area**?