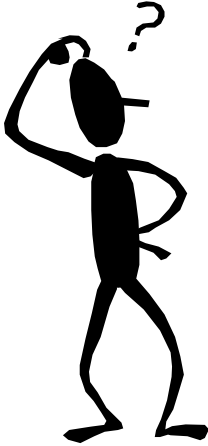


## Where's The Error?

Careless Carol needs 200 mL of 50% ethanol, but only has 90% available. She performs the following calculations, using the formula  $V_a = \frac{V_n \times C_n}{C_a}$



$$V_n = 200 \text{ mL}$$

$$C_n = 90\%$$

$$C_a = 50\%$$

$$V_a = \frac{200 \text{ mL} \times 90\%}{50\%}$$

$$V_a = 360 \text{ mL}$$

Carol realizes it is impossible to make 200 mL of 50% ethanol by adding water to 360 mL of 90% ethanol. Where's the error?