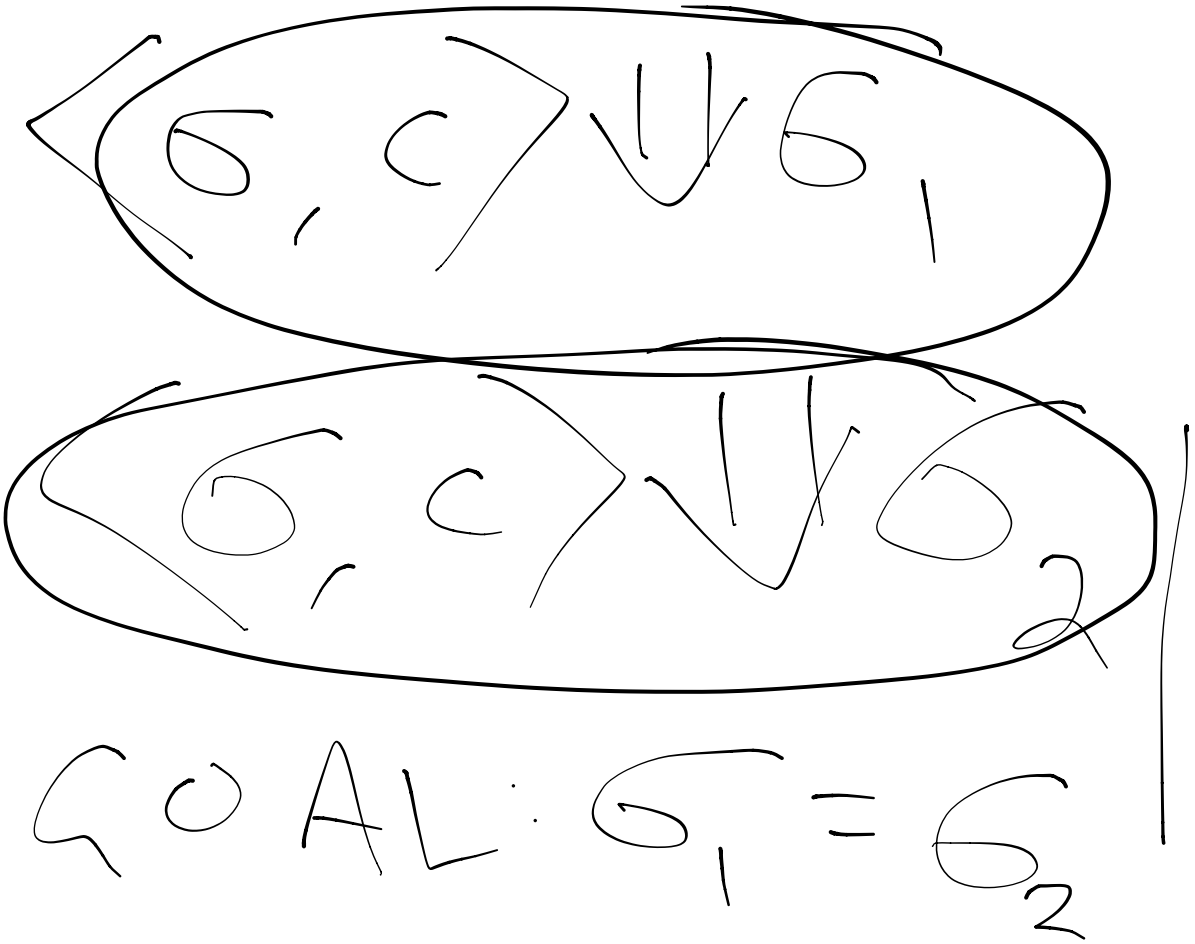
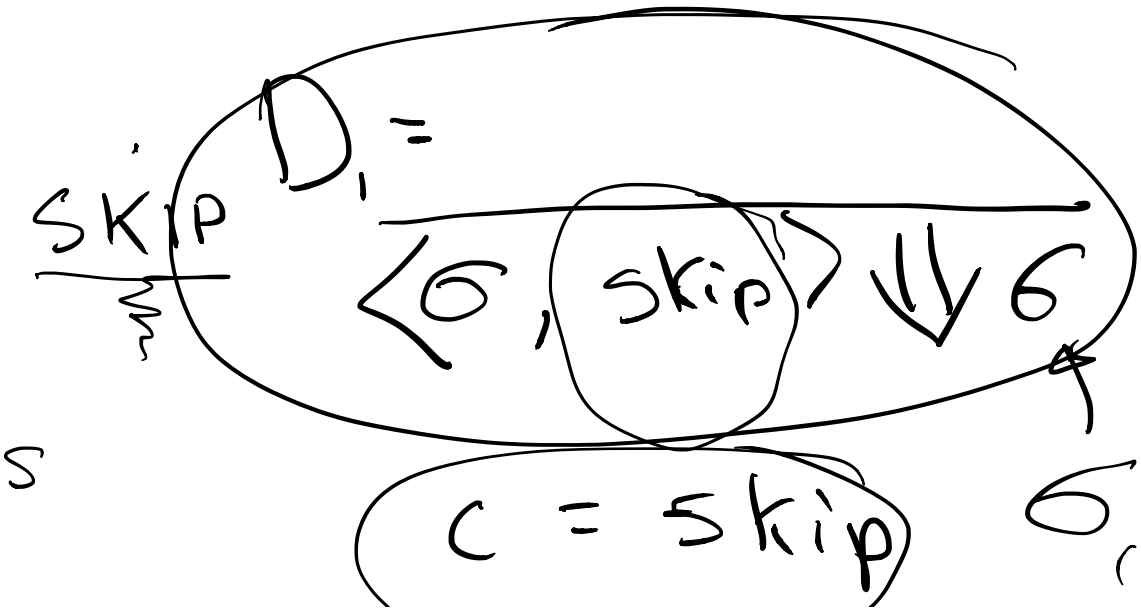

⟨σ, c⟩ ⇓ σ₁
⟨σ, c⟩ ⇓ σ₂
GOAL: σ₁ = σ₂


SKIP
D₁ =
⟨σ, skip⟩ ⇓ σ
S
(c = skip) σ

$$D_2 = \frac{}{\langle \sigma, \text{skip} \rangle \Downarrow \sigma_2}$$

$$\frac{\sigma_1 = \sigma_2}{\vdots}$$

$$\text{ASSIGN}^{D_1} \frac{\langle \sigma, a \rangle \Downarrow n}{\langle \sigma, x := a \rangle \Downarrow \sigma[x \mapsto n]}$$

$$\Downarrow_A \quad \Downarrow_B \quad \Downarrow_C \quad \Downarrow$$

$$c = x := a$$

$$D_2 = \frac{}{\Downarrow \sigma[x \mapsto n]}$$

$$\sigma_1 = \sigma[x \mapsto n]$$

$$\sigma_2 = \sigma[x \mapsto n]$$

$$\sigma_1 = \sigma_2$$

SEQ

$$D_1 = \frac{\langle \sigma, c_1 \rangle \Downarrow \sigma_{21}' \qquad \langle \sigma_2', c_2 \rangle \Downarrow \sigma_{21}}{\langle \sigma, c_1 ; c_2 \rangle \Downarrow \sigma_{21}}$$

$$D_2 = \frac{\Downarrow \sigma_2' \qquad \Downarrow \sigma_2}{\Downarrow \sigma_2}$$

$$\sigma_1' = \sigma_2'$$

$$\sigma_1 = \sigma_2$$

$$\text{IF-T}\ D_{\varepsilon 1} = \frac{\langle \sigma, b \rangle \Downarrow \text{true} \qquad \langle \sigma, c_1 \rangle \Downarrow \sigma_1}{\langle \sigma, \text{if } b \text{ then } c_1 \text{ else } c_2 \rangle \Downarrow \sigma_1}$$

$c = \text{if} \ldots$

$$D_2 = \frac{\bigcirc}{\qquad\qquad\qquad}$$

$\sigma_1' = \sigma_2$