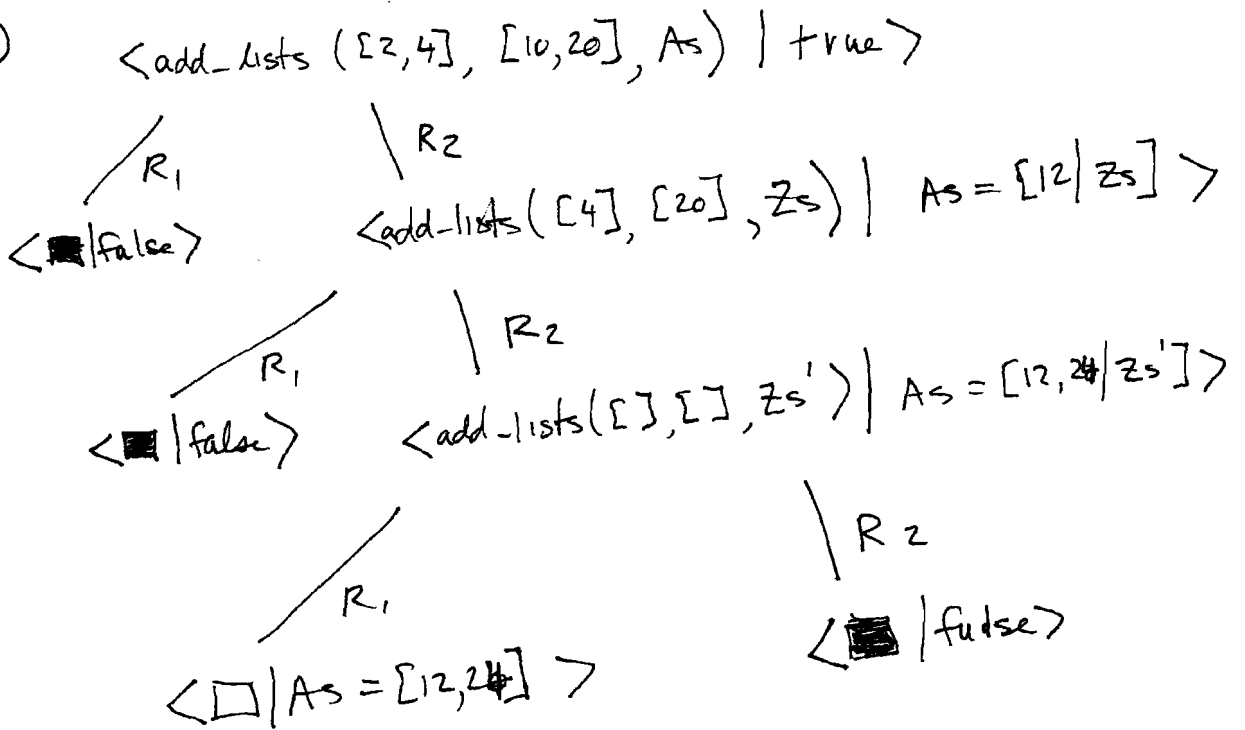
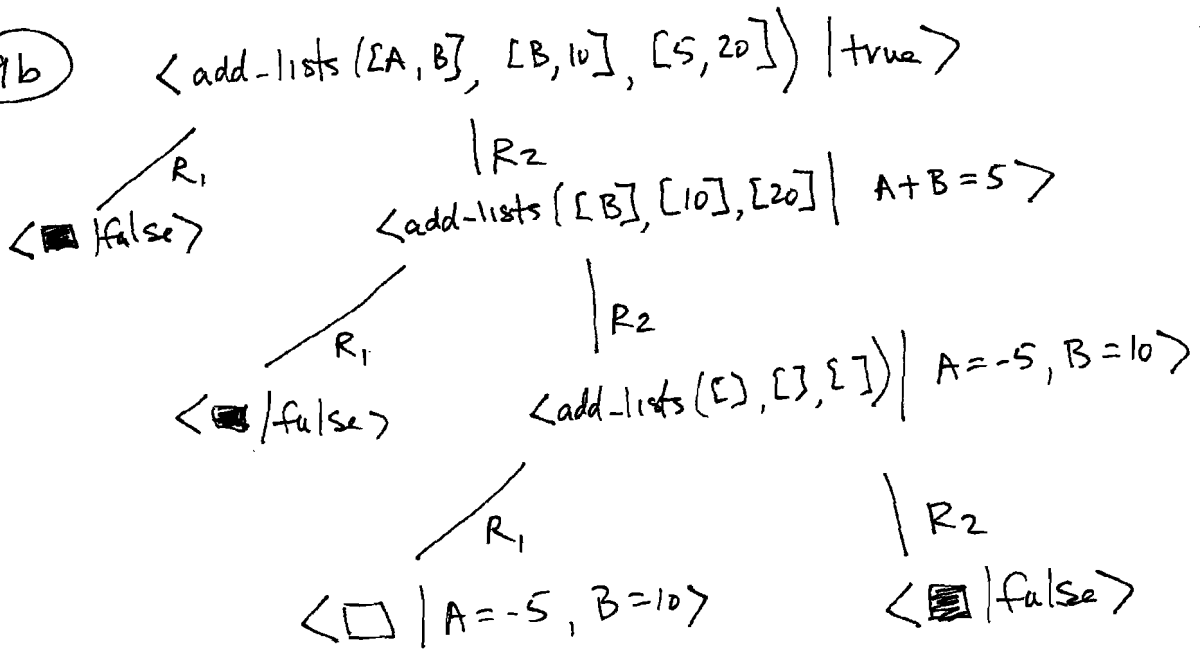


9a



9b



9c

$\langle \text{add-lists}(As, As, As) \mid \text{true} \rangle$

$\swarrow R_1$
 $\langle \square \mid As = [] \rangle$

$\searrow R_2$
 $\langle \text{add-lists}(xs, xs, xs) \mid As = [0 \mid xs] \rangle$

$\swarrow R_1$
 $\langle \square \mid As = [0] \rangle$

$\searrow R_2$
 $\langle \text{add-lists}(xs', xs', xs') \mid As = [0, 0 \mid xs'] \rangle$

$\swarrow R_1$
 $\langle \square \mid As = [0, 0] \rangle$

$\searrow R_2$
 $\langle \text{add-lists}(xs'', xs'', xs'') \mid As = [0, 0, 0 \mid xs''] \rangle$

$\swarrow R_1$
 $\langle \square \mid As = [0, 0, 0] \rangle$

$\searrow R_2$
.....