Lemma 2

Let D_1, D_2 be clauses and σ a ground substitution.

- If
$$\frac{D_1\sigma \quad D_2\sigma}{D}$$
by Binary Resolution, then there is
$$\frac{D_1 \quad D_2}{D'}$$
by Binary Resolution and a ground substitution γ, $D'\gamma = D$;

- If
$$\frac{D_1\sigma}{D}$$
by Positive Factoring, then there is
$$\frac{D_1}{D'}$$
by Positive Factoring and a ground substitution γ, $D'\gamma = D$.