eq_bool[12,41]

$p =\mathrm{b}\ q\ \equiv_{\mathrm{def}}\ (p \wedge_b q) \vee_b ((\neg_b p) \wedge_b (\neg_b q))$

http://www.nuprl.org/FDLcontent/p0_942988_/p15_2806_{eq_bool}.html