(a) (~(p \/ q -> ((p /\ q) \/ p \/ ~q))) = 1

(a) |

(b) (p \/ q -> ((p /\ q) \/ p \/ ~q)) = 0

(b) |

(c) ((p /\ q) \/ p \/ ~q) = 0

(d) p \/ q = 1

(c) |

(e) (p /\ q) = 0

(f) ~q = 0

p = 0

(d)↙ ↘(d)

q = 1 p = 1 (closed)

(f) |

q = 1

(e)↙ ↘(e)

p = 0 q = 0(closed)

All rules on this branch have been applied, so the formula is satisﬁable.