

	1. Null hypothesis $H_0$	2. Alternative hypothesis $H_1$	
	3. Prior null hypothesis probability $\mathbb{P}(H_0)$	4. Prior alternative hypothesis probability $\mathbb{P}(H_1)$	5. Prior odds of alternative hypothesis $\mathbb{P}(H_1)/\mathbb{P}(H_0)$
6. New information $E$	7. Likelihood under null hypothesis $\mathbb{P}(E H_0)$	8. Likelihood under alternative hypothesis $\mathbb{P}(E H_1)$	9. Likelihood ratio $\mathbb{P}(E H_1)/\mathbb{P}(E H_0)$
	11. Posterior null hypothesis probability $\mathbb{P}(H_0 E)$	12. Posterior alternative hypothesis probability $\mathbb{P}(H_1 E)$	10. Posterior odds of alternative hypothesis $\mathbb{P}(H_1 E)/\mathbb{P}(H_0 E)$

Instructions:

Box 1: Write down the null hypothesis as precisely as possible.

Box 2: Write down the alternative hypothesis as precisely as possible.

(**WARNING:** do not use this worksheet if the alternative hypothesis is vague.)

Box 3: Calculate the prior probability of the null hypothesis

Box 4: Calculate the prior probability of the alternative hypothesis.

(If there are no other possible hypotheses, this is equal to 1 minus Box 3.)

Box 5: Divide Box 4 by Box 3.

Box 6: Write down the new information one has acquired since the prior state.

(**WARNING:** do not use this worksheet if one cannot be certain that all relevant new information has been reported to you.)

Box 7: Calculate the likelihood of the new information under the null hypothesis.

Box 8: Calculate the likelihood of the new information under the alternative hypothesis.

Box 9: Divide Box 8 by Box 7.

Box 10: Multiply Box 5 by Box 9 (Bayes' rule)

Box 11: Divide 1 by (1+Box 10).

(**WARNING:** only do this if there are no other possible hypotheses.)

Box 12: Subtract 1 from Box 11 OR divide Box 10 by (1+Box 10).

(**WARNING:** only do this if there are no other possible hypotheses.)