

Table 1: Evaluation Summary: LLM vs. SMT Verdicts

Case ID	Fact Pattern Summary	Model Output	SMT Verdict	Status
Case 1	Marcus & Lily (23yo QC Student, >50% support, low income)	Yes	Yes	Correct
Case 2	Ellen & Zack (17yo Nephew, fails residency, fails self-support, high income)	Yes	No	Error
Case 3	Raj & Meena (68yo Mother, QR, low income, valid MSA assumed)	Yes	Yes	Correct
Case 4	Luis & Paco (35yo Cousin/HH Member, >50% support, fails QR income)	No	No	Correct
Case 5	Helen & Irene (90yo Mother, QR, low income, ambiguous/verbal MSA)	Yes	No	Ambiguous
Case 6	Brenda & Carl (85yo Father, QR, low income, ambiguous support level)	No	No	Ambiguous