

SOME ADDITIONAL EXAMPLES FOR ERRORS IN HYPOTHESIS TESTING

THE NULL IS THAT THE POP CORRELATION IS 0

DEC\REALITY	$H(0): \rho = 0$	$H(0): \rho \text{ not} = 0$
RET $H(0)$	RET $H(0)$ WHEN TRUE (corr)	RET $H(0)$ WHEN FALSE (II, $\hat{\alpha}$)
REJ $H(0)$	REJ $H(0)$ WHEN TRUE (I, $\hat{\alpha}$)	REJ $H(0)$ WHEN FALSE (power)

THE NULL IS THAT NO DIFF IN TWO TREATMENTS

DEC/REALITY	$H(0): \mu_1 = \mu_2$	$H(0): \mu_1 \text{ not} = \mu_2$
RET $H(0)$	RET $H(0)$ WHEN TRUE (corr)	RET $H(0)$ WHEN FALSE (II, $\hat{\alpha}$)
REJ $H(0)$	REJ $H(0)$ WHEN TRUE (I, $\hat{\alpha}$)	REJ $H(0)$ WHEN FALSE (power)

THE NULL IS THAT THE VARIANCE IN THE POPULATION IS 100

DEC\REALITY	$H(0): \sigma^2 = 100$	$H(0): \sigma^2 \text{ not} = 100$
RET $H(0)$	RET $H(0)$ WHEN TRUE (corr)	RET $H(0)$ WHEN FALSE (II, $\hat{\alpha}$)
REJ $H(0)$	REJ $H(0)$ WHEN TRUE (I, $\hat{\alpha}$)	REJ $H(0)$ WHEN FALSE (power)

THE NULL IS THAT THE PROPORTION OF COLLEGE STUDENTS IN THE COUNTRY IS .6

DEC\REALITY	$H(0): p = .6$	$H(0): p \text{ not} = .6$
RET $H(0)$	RET $H(0)$ WHEN TRUE (corr)	RET $H(0)$ WHEN FALSE (II, $\hat{\alpha}$)
REJ $H(0)$	REJ $H(0)$ WHEN TRUE (I, $\hat{\alpha}$)	REJ $H(0)$ WHEN FALSE (power)