POWER EXAMPLES

1) Single sample *t*-test (assume variance is known) – you can do this in the applet, or Stata, or both

H_0:	H_1:	σ	α	n	1-sided or 2	Power	Pr(Type II error)
μ=100	μ=105	15	0.05	25	1-sided +		
μ=100	μ=105	15	0.05	35	1-sided +		
μ=100	μ=105	15	0.05	50	1-sided +		
μ=100	μ=105	15	0.05	50	2-sided		
μ=100	μ=110	15	0.05	25	1-sided +		
μ=100	μ=110	15	0.05	35	1-sided +		
μ=100	μ=110	15	0.05	50	1-sided +		
μ=100	μ=110	15	0.05	50	1-sided -		
μ=100	μ=103	15	0.05	20	1-sided +		
μ=100	μ=103	15	0.05	40	1-sided +		
μ=100	μ=103	15	0.05	60	1-sided +		
μ=100	μ=103	15	0.05	80	1-sided +		
μ=100	μ=103	15	0.05	160	1-sided +		

2) Single sample *t*-test (assume variance is known) minimum required sample size – use Stata's power calculator

H_0:	H_1:	σ	α	n	1-sided or 2	Power	Pr(Type II error)
μ=100	μ=105	15	0.05		1-sided +	0.80	0.20
μ=100	μ=105	15	0.05		1-sided +	0.90	0.10
μ=100	μ=107	15	0.05		1-sided +	0.80	0.20
μ=100	μ=103	15	0.05		1-sided +	0.80	0.20
μ=100	μ=105	20	0.05		1-sided +	0.80	0.20
μ=100	μ=105	20	0.05		1-sided +	0.90	0.10

3) Single sample *t*-test (assume variance is known) minimum detectable effect size – use Stata's power calculator

H_0:	H_1:	σ	α	n	1-sided or 2	Power	Pr(Type II error)
μ=100		15	0.05	25	1-sided +	0.80	0.20
μ=100		15	0.05	35	1-sided +	0.90	0.10
μ=100		15	0.05	50	1-sided +	0.80	0.20
μ=100		15	0.05	50	2-sided	0.80	0.20