APPENDIX 1:

Figure 1: Results of t-test for Scenario 1, Table 1a

. ttest iop, by(drug)

 ${\tt Two-sample\ t\ test\ with\ equal\ variances}$

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
A B	4 0 4 0	14.8 16.425	.3876292	2.451582 2.170756	14.01595 15.73076	15.58405 17.11924
combined	80	15.6125	.2729896	2.441693	15.06913	16.15587
diff		-1.625	.517746		-2.655753	5942469

Figure 2: Results of t-tests for Scenario 1, Table 1b

. ttest meaniopinrighteye, by(drug)

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
A B	10 10	15 17.3	.3248931	1.027402	14.26504 16.10536	15.73496 18.49464
combined	20	16.15	.4008215	1.792528	15.31107	16.98893
diff		-2.3	.6200358		-3.602647	997353

diff = mean(A) - mean(B) $t = -3.7095 \\ \text{Ho: diff = 0} \\ \text{Ha: diff < 0} \\ \text{Ha: diff != 0} \\ \text{Ha: diff > 0}$

. ttest meaniopinlefteye, by(drug)

Two-sample t test with equal variances $% \left(1\right) =\left(1\right) \left(1\right)$

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
A B	10 10	14.6 15.55	.7102425 .4681524	2.245984	12.99332 14.49097	16.20668 16.60903
combined	20	15.075	.4280848	1.914453	14.17901	15.97099
diff		95	.8506533		-2.737156	.8371564

Figure 3: Results of t-tests for Scenario 2, Table 2

. ttest select1, by(lens)

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
A B	10 10	.226	.0262552	.0830261	.1666067	.2853933
combined	20	.1575	.0219794	.0982947	.1114967	.2035033
diff		.137	.0315753		.0706627	.2033373

diff = mean(A) - mean(B) t = 4.3388 Ho: diff = 0 degrees of freedom = 18

. ttest select2, by(lens)

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
A B	10 10	.106	.0265497	.0839577	.0459403	.1660597
combined	20	.1555	.0228436	.1021596	.1076878	.2033122
diff		099	.0407281		1845666	0134334

 $\label{eq:diff} \begin{array}{lll} \mbox{diff} = \mbox{mean(A)} & - \mbox{mean(B)} & & \mbox{t} = & -2.4308 \\ \mbox{Ho: diff} = & 0 & \mbox{degrees of freedom} = & 18 \end{array}$

. ttest select3, by(lens)

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
A B	10 10	.191	.0378726	.1197637 .0567255	.1053262	.2766738
combined	20	.1595	.0216367	.0967621	.114214	.204786
diff		.063	.041906		0250412	.1510412