Recorded here is the frequency distribution of the blood types of 96 persons who have volunteered to donate blood at a plasma center.

Blood type	O	*A*	*B*	*AB*	Total
Frequency	38	43	10	5	96

Here is the problem statement: test the null hypothesis that the probability of the blood types O, A, B, and AB is in the ratios 4:4:1:1. Use $\alpha = .05$.

A plant physiologist investigated the effect of mechanical stress on the growth of soybean plants. Individually potted seedlings were randomly allocated to four treatment groups of 13 seedlings each. Seedlings in two groups were stressed by shaking for 20 minutes twice daily, while two control groups were not stressed. Also, plants were grown in either low or moderate light. Thus, the treatments were:

Treatment 1: Low light, control
Treatment 2: Low light, stress
Treatment 3: Moderate light, control
Treatment 4: Moderate light, stress

After 16 days of growth, the plants were harvested, and the total leaf area (cm^2) of each plant was measured. The results are given in Table 12.1

TABLE 12.1
Leaf Area (cm^2) of Soybean Plants

	TREATMENT			
	1	2	3	4
	264	235	314	283
	200	188	320	312
	225	195	310	291
	268	205	340	259
	215	212	299	216
	241	214	268	201
	232	182	345	267
	256	215	271	326
	229	272	285	241
	288	163	309	291
	253	230	337	269
	288	255	282	282
	230	202	273	257
Mean	245.3	212.9	304.1	268.8
SD	27.0	29.7	26.9	35.2
n	13	13	13	13