

30 cost per suit
90 full price
45 half-price
29.3991 discount price (random)
300 order quantity (adjustable)

Group Members: Tsion Temesgen, Alexis Frazee, Fabiha Hatem, Abdelrahman Hussein, Denis Smekhov

Trial	3-Month Demand (Normal)	4th-Month Demand	Total Demand	Full Price Sold	Remaining Inventory After Full	Half Price sold	Remaining Inventory After Sale	Discount Price	Total Profit
1	261.4462264	75.63792503	337.0841514	261.4462264	38.55377363	38.55377363	0	21.77898489	16265.08019

A.) Expected Value of Total Demand: 344.8154

Standard Deviation of Total Demand: 78.59916

B.) Expected Profit: 14912.8734

Histogram can be found under tab "b.) SimVoi.2 Univariate Summary"

C.) # Trials Sold All: 3543

The probability that they will all be sold within four months: 0.7086

D.) 400 Units is the order quantity that maximizes the expected value of total profit (15825.543)

Scatter Plot can be found under tab "d.)"

E.) One-third off: 15199.00019

Half-price sale: 14912.8734

Since \$15,199.00 > \$14,912.87, the one-third off strategy is expected to yield a higher profit than the half-price sale. Therefore the one-third off sale is the better option.

