1.a. Use the Descriptive Statistics tool in Excel's Data Analysis Toolpak
to summarize Quantity Sold, Buying Price, and Selling Price.

QUANTITY		BUYING PRIZE		SELLING PRICE	
Mean	8.121442125	Mean	77.54648956	Mean	94.05998102
Standard Error	0.189441306	Standard Error	1.876294714	Standard Error	2.388570312
Median	8	Median	75	Median	85.5
Mode	6	Mode	37	Mode	162
Standard Deviation	4.348905658	Standard Deviation	43.07312314	Standard Deviation	54.83316795
Sample Variance	18.91298043	Sample Variance	1855.293937	Sample Variance	3006.676308
Kurtosis	-1.200133735	Kurtosis	-1.038246394	Kurtosis	-0.907295833
Skewness	-0.002026594	Skewness	0.04397548	Skewness	0.233771415
Range	14	Range	145	Range	203.3
Minimum	1	Minimum	5	Minimum	6.7
Maximum	15	Maximum	150	Maximum	210
Sum	4280	Sum	40867	Sum	49569.61
Count	527	Count	527	Count	527
Largest(1)	15	Largest(1)	150	Largest(1)	210
Smallest(1)	1	Smallest(1)	5	Smallest(1)	6.7

b.Create boxplots for Buying and Selling Price.
Highlight and interpret any outliers or skewed distributions.

Chart Title
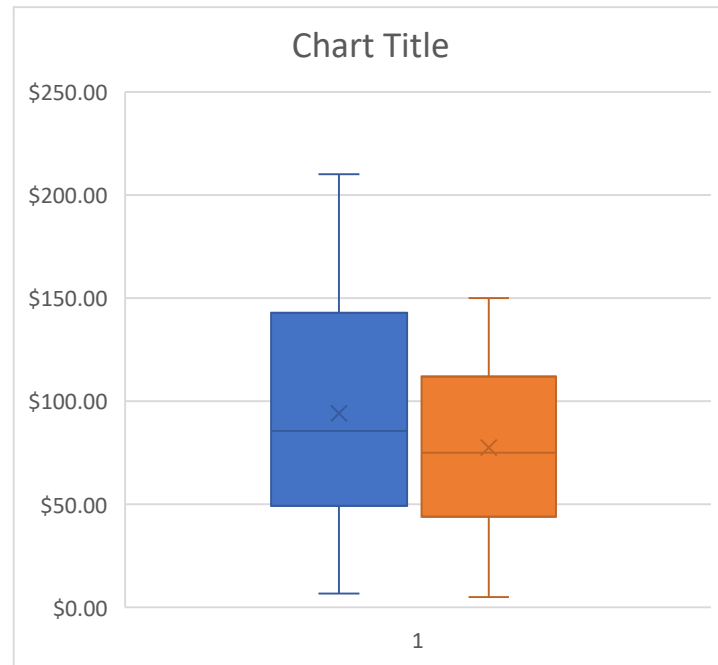
2.Compare buying price and selling price.
What does the distribution reveal about pricing strategies?

Sum of BUYING PRIZE	Sum of SELLING PRICE
40867	49569.61
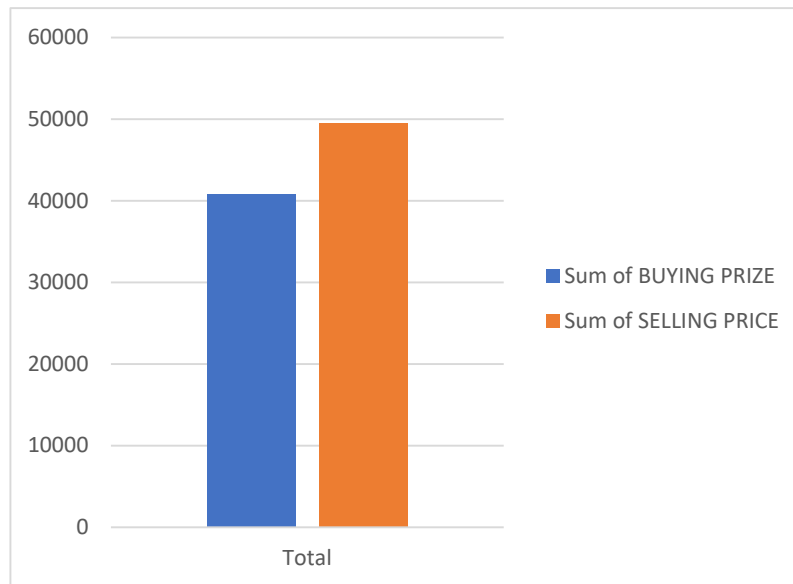
3.Count the frequency of each product category and
visualize the result.

Row Labels	Count of CATEGORY
Category01	102
Category02	118
Category03	54
Category04	149
Category05	104
(blank)	
Grand Total	**527**

Total
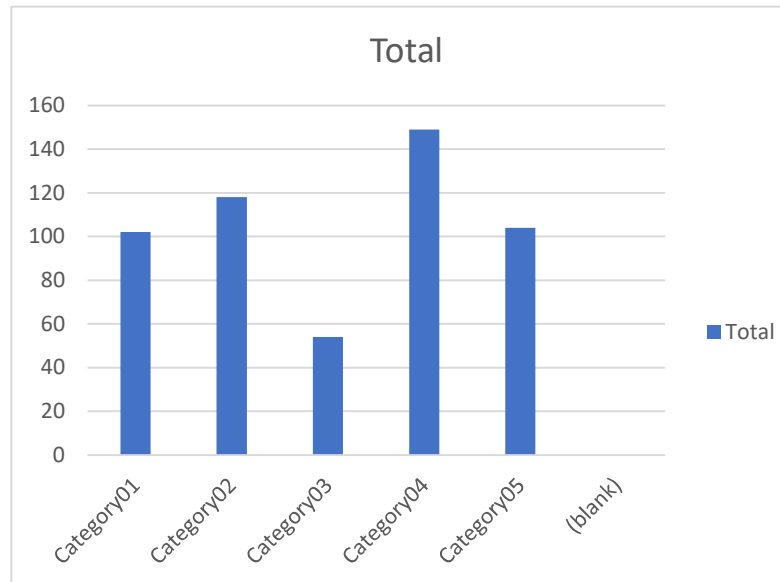
4.Identify the top 5 most profitable products.
What trends do you notice?

Row Labels	Sum of PROFIT
Product42	$840.00
Product30	$745.92
Product19	$720.00
Product02	$567.00
Product41	$538.20
Product32	$455.68
Product14	$381.92
Product21	$328.86
Product33	$321.10
Product05	$316.54
Product12	$296.38
Product40	$252.00
Product10	$195.36
Product37	$168.84
Product20	$167.75
Product22	$164.56
Product27	$155.04
Product18	$146.52
Product17	$136.68
Product43	$128.64
Product08	$127.82
Product44	$115.52
Product38	$110.88
Product03	$109.34
Product26	$93.24
Product29	$91.65
Product13	$90.72
Product23	$84.60

Sum of PROFIT

Total

$900.00
$800.00
$700.00
$600.00
$500.00
$400.00
$300.00
$200.00
$100.00
$0.00

■Total

Product42
Product02
Product14
Product05
Product10
Product22
Product17
Product44
Product26
Product23
Product01
Product34
Product36
Product15
Product09
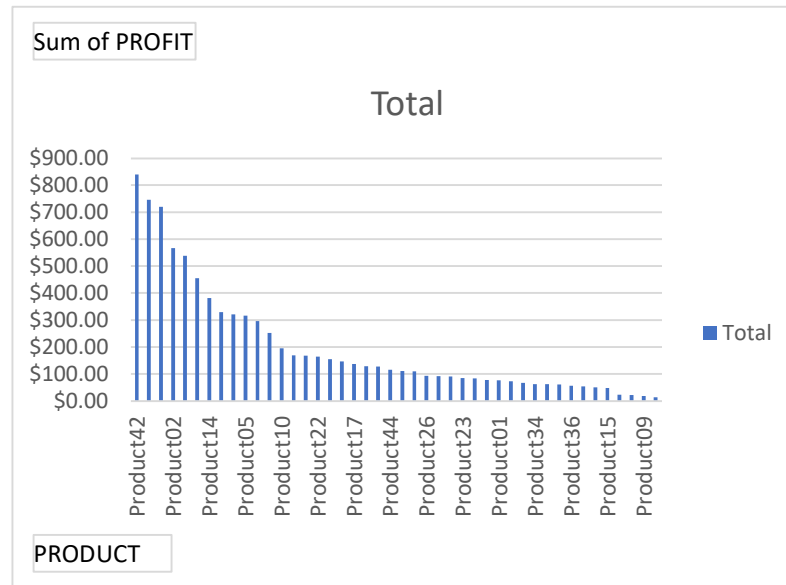
PRODUCT

|	
Product06	$84.00
Product24	$77.76
Product01	$76.44
Product04	$72.60
Product31	$66.96
Product34	$62.70
Product28	$62.53
Product11	$61.60
Product36	$56.70
Product16	$54.60
Product39	$49.95
Product15	$48.36
Product07	$23.65
Product35	$22.10
Product09	$18.60
Product25	$13.30
Grand Total	**$8,702.61**

5.Identify seasonal or time-based trends
(e.g., are certain products/categories more frequent in early vs. late

Row Labels	Category01	Category02	Category03	Category04	Category05	Grand Total
1	10	11	8	15	12	56
2	10	12	3	11	4	40
3	9	6	4	14	10	43
4	7	8	1	14	9	39
5	9	15	5	14	7	50
6	8	9	8	9	7	41
7	11	7	4	13	9	44
8	9	11	8	12	8	48
9	9	5	4	15	12	45
10	7	8	5	9	8	37
11	6	13	2	12	7	40
12	7	13	2	11	11	44
Grand Total	102	118	54	149	104	527
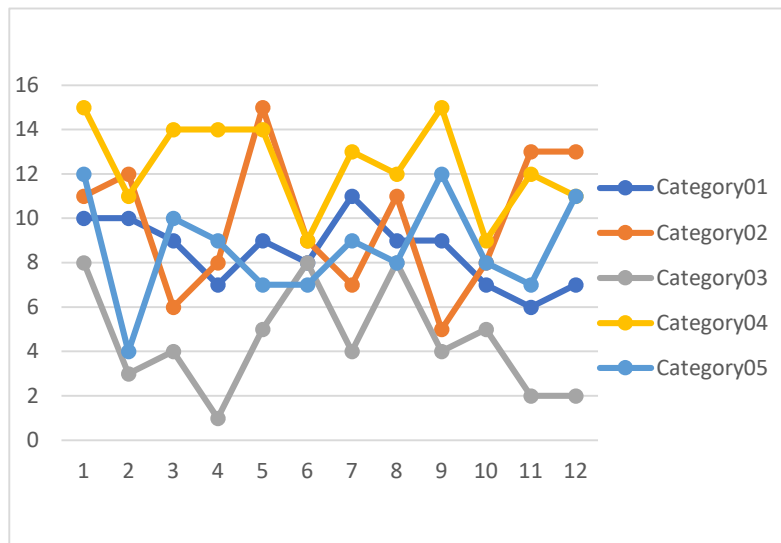
6.Create a contingency table between Payment Mode and Sale Type.
Visualize this relationship.

Count of PRODUCT	Column Labels			
Row Labels	Direct Sales	Online	Wholesaler	Grand Total
Cash	141	84	39	264
Online	142	83	38	263
Grand Total	283	167	77	527
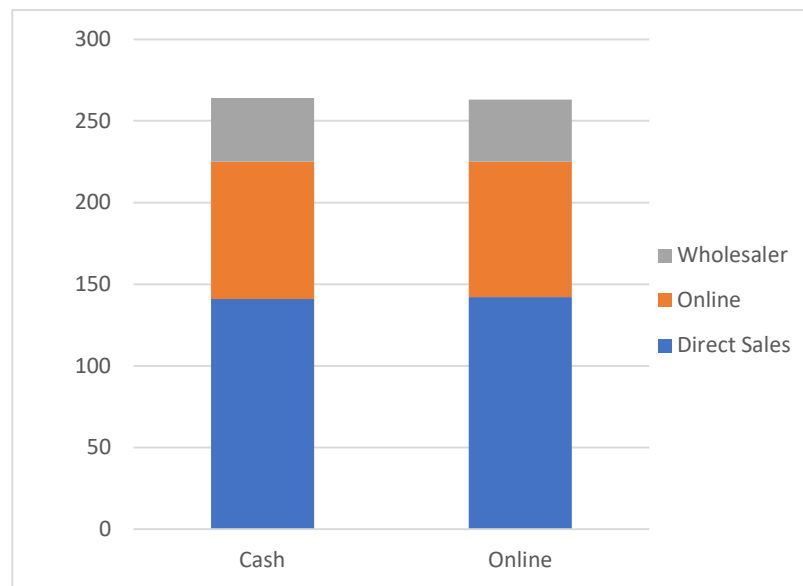
7.a. Use Excel's Correlation tool to assess the relationship between
Quantity Sold, Buying Price, Selling Price, and Profit.

	QUANTITY	Profit	SELLING PRICE	BUYING PRIZE
QUANTITY	1			
SELLING PRICE	-0.009286281		1	
BUYING PRIZE	0.006140461		0.983277699	1
Profit	-0.052486188	1	0.846655563	0.735587947

7.b. Create a scatter plot of Quantity vs. Profit and
use trendlines to interpret correlation strength and direction.

Scatter Plot: Quantity vs. Profit
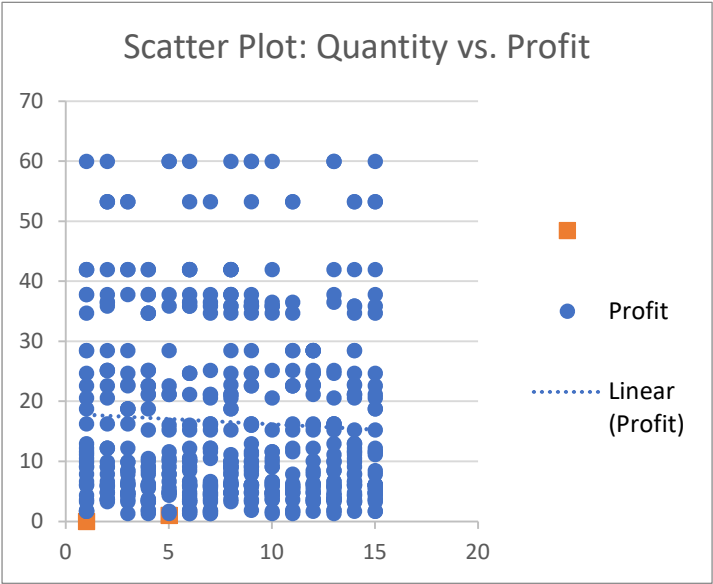
7.c.Is the relationship consistent across different sale types?

SALE TYPE	Online

Sum of QUANTITY	Sum of Profit
1443	$2,646.49
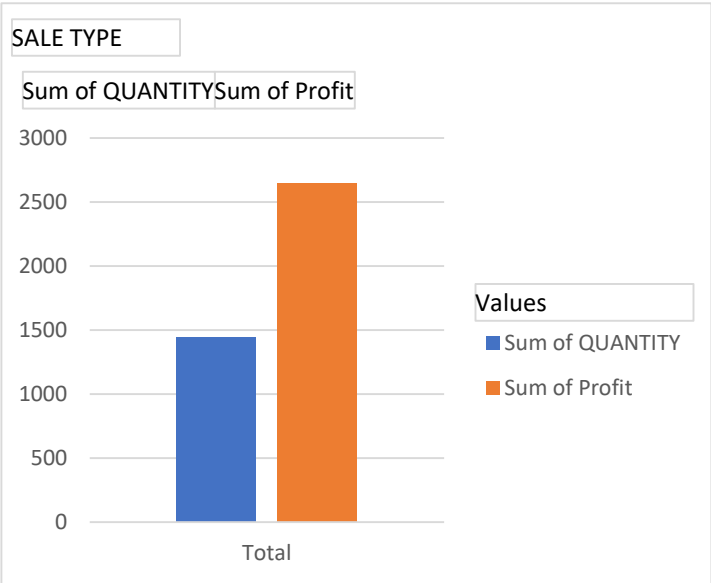
SALE TYPE	Direct Sales

Sum of QUANTITY	Sum of Profit
2244	$4,671.08

SALE TYPE

Sum of QUANTITY Sum of Profit

Values
- Sum of QUANTITY
- Sum of Profit

Total
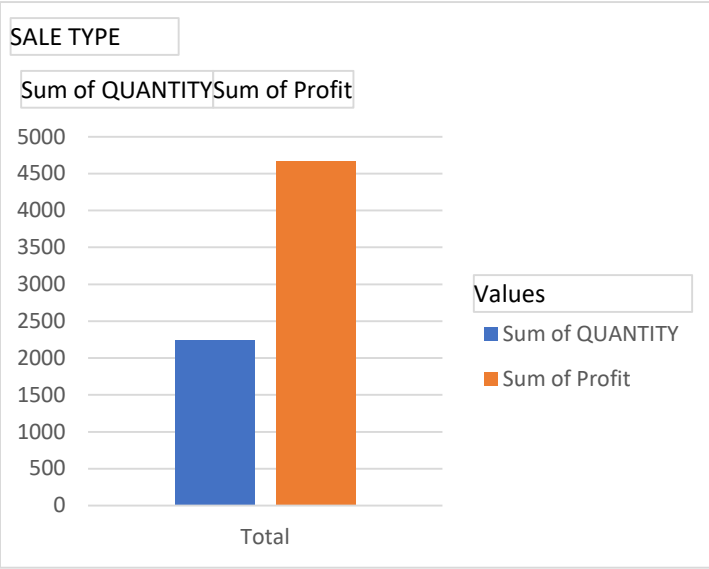
SALE TYPE	Wholesaler

Sum of QUANTITY	Sum of Profit
593	$1,385.04
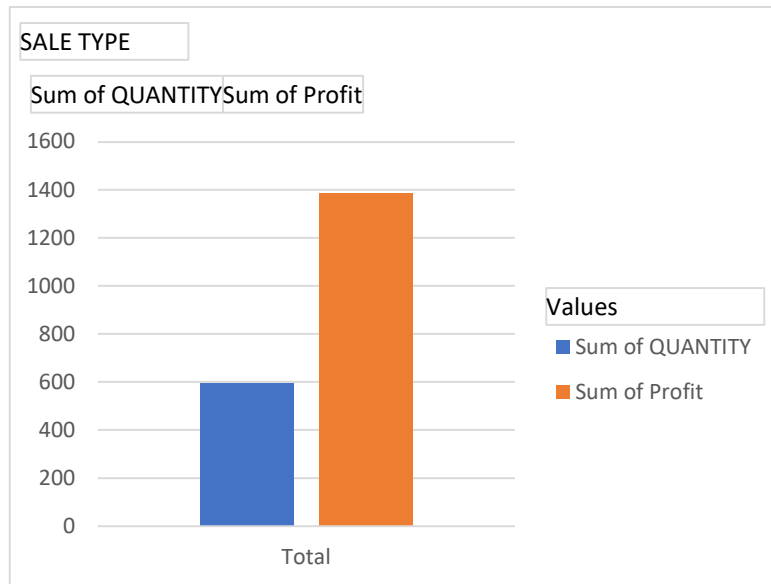
8.a. Compute the average profit per Sale Type and per Payment Mode.
8.b. Which combination (e.g., Direct Sales + Online payment) appears

Average of Profit	Column Labels		
Row Labels	Cash	Online	Grand Total
Direct Sales	$17.17	$15.84	$16.51
Online	$16.42	$15.26	$15.85
Wholesaler	$19.31	$16.63	$17.99
Grand Total	$17.25	$15.77	$16.51