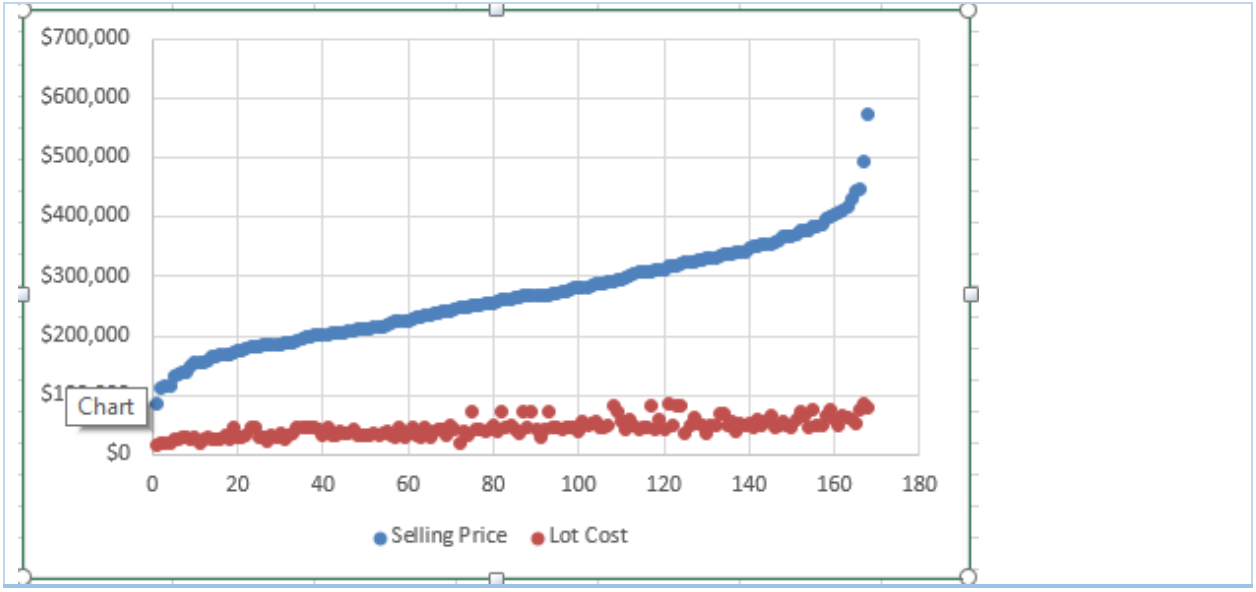
ANLY500 Homework 2

4. A national homebuilder builds single-family homes and condominium-style townhouses. The Excel file *House Sales* provides information on the selling price, lot cost, type of home, and region of the country (Midwest, South) for closings during 1 month. Construct a scatter diagram showing the relationship between sales price and lot cost.



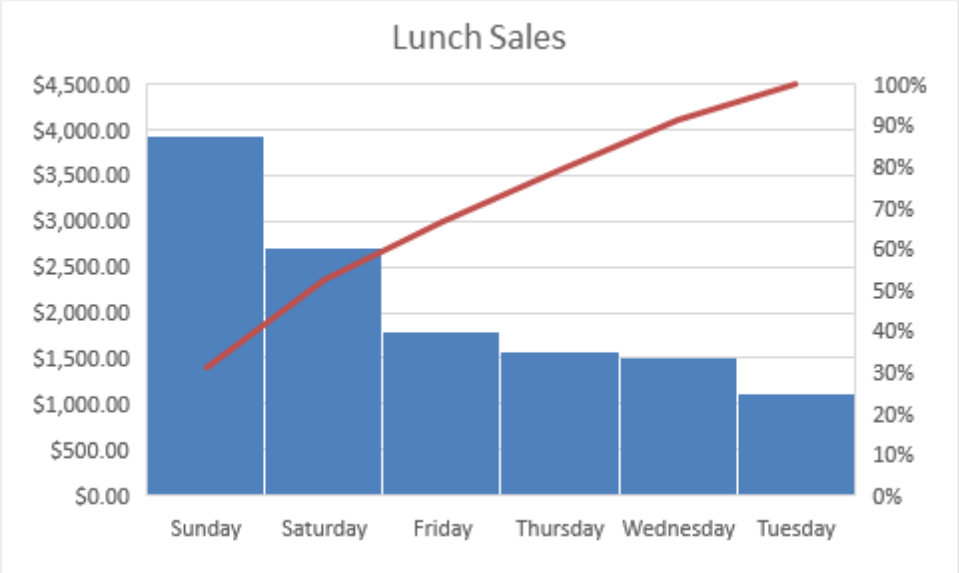
9. In the Excel file Banking Data, apply the following data visualization tools:

    1. Use data bars to visualize the relative values of Median Home Value.

    2. Use color scales to visualize the relative values of Median Household Wealth.
    3. Use an icon set to show high, medium, and low bank balances, where high is above $30,000, low is below $10,000, and medium is anywhere in between.

	A	B	C	D	E	F
1	Median Age	Median Years Edu	Median Income	Median Home Value	Median Household Wealth	Average Bank Balance
2	19.5	16.1	$15,395	$67,500	$24,999	$5,956
3	22.0	12.0	$14,115	$53,923	$24,999	$9,071
4	22.8	12.3	$16,590	$67,850	$24,999	$10,436
5	23.5	13.6	$33,088	$105,430	$44,223	$20,834
6	28.7	12.1	$32,574	$50,244	$49,662	$14,393
7	29.6	12.1	$29,375	$52,096	$24,999	$13,693
8	29.9	12.3	$46,528	$88,889	$96,591	$21,798
9	30.3	12.2	$9,354	$91,708	$24,999	$9,904
10	30.5	12.8	$21,433	$83,456	$24,999	$11,380
11	30.6	12.3	$26,565	$64,038	$42,543	$17,410
12	30.8	11.9	$17,992	$46,885	$24,999	$10,679
13	32.1	12.3	$30,319	$67,083	$34,367	$13,677
14	32.4	12.6	$29,733	$60,252	$27,531	$14,620
15	32.7	12.6	$47,923	$104,539	$88,384	$20,826
16	32.7	12.3	$34,688	$82,870	$93,750	$20,082
17	32.7	12.2	$35,625	$64,737	$76,321	$17,077
18	32.9	12.4	$37,813	$86,667	$69,643	$19,196
19	33.1	12.2	$37,287	$75,561	$86,591	$19,343
20	33.2	12.3	$31,250	$91,049	$52,976	$18,959
21	33.4	12.6	$54,986	$105,647	$126,929	$24,671
22	33.5	12.5	$41,795	$94,456	$91,806	$21,556
23	33.6	12.7	$57,390	$111,836	$134,434	$27,396
24	33.6	12.7	$64,792	$116,071	$185,714	$32,677
25	33.7	13.8	$64,601	$103,737	$134,223	$27,877
26	33.8	13.6	$76,771	$159,531	$197,264	$37,996
27	33.9	12.1	$32,813	$40,313	$79,167	$26,405
28	34.0	12.6	$20,578	$113,239	$24,999	$14,095
29	34.3	12.7	$61,446	$122,619	$161,538	$28,018

23. Use the *Histogram* tool to construct a frequency distribution of lunch sales amounts in the *Restaurant Sales* database.



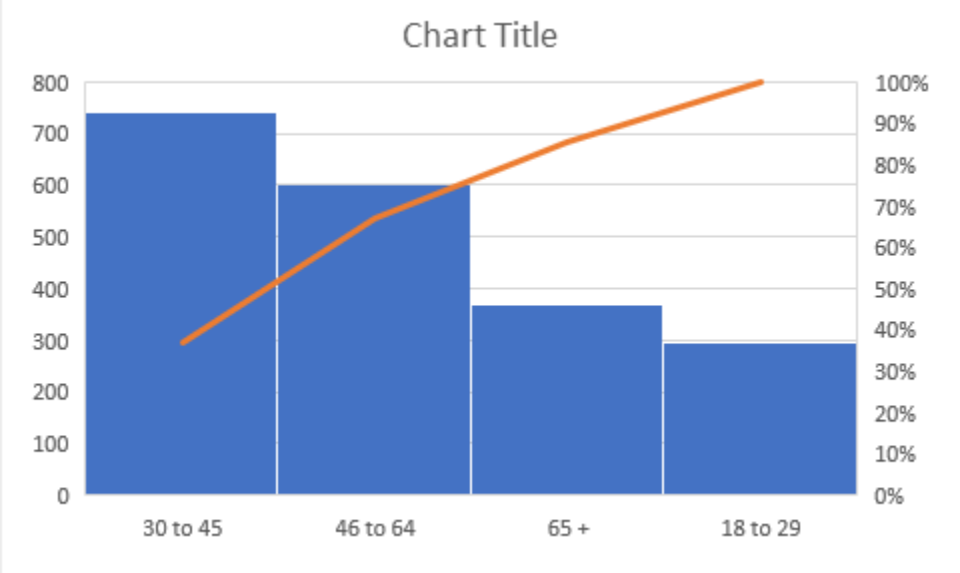
24. A community health-status survey obtained the following demographic information from the respondents:

Age	Frequency
18 to 29	297
30 to 45	743
46 to 64	602

65 +	369

Compute the relative frequency and cumulative relative frequency of the age groups.

Age	Frequency	Relative Frequency(%)	Cumulative relative Frequency(%)
30 to 45	743	37	37
46 to 64	602	30	67
65 +	369	18	85
18 to 29	297	15	100



31. Find the 10th and 90th percentiles and 1st, 2nd, and 3rd quartiles for the combined amounts of checking and savings accounts in the Excel file *Credit Risk Data*.

k	Quartiles
1	490
2	836
3	2632

k	Percentile
0.1	194

0.9	9098.2

39. The Excel File Rin's Gym provides sample data on member body characteristics and gym activity. Create PivotTables to find:

1. a cross-tabulation of gender and body type versus BMI classification

Count of BMI Calculation	BIM Classification		
Gender & Body Type	Muscular	Obese	Grand Total
F		10	10
Athletic		3	3
Average		4	4
Round		1	1
Thin		2	2
M	4	9	13
Athletic		3	3
Average		4	4
Muscular	4	1	5
Round		1	1
Grand Total	4	19	23

2. average running times, run distance, weight lifting days, lifting session times, and time spent in the gym by gender.

Gender	Weight Lift (Days)	Lifiting Session (Mins)	Running Times (Hours)	Distance of Run (Miles)
F	1.8	28.5	0.491666667	2.45
M	2.846153846	65.76923077	0.303846154	1.769230769

Summarize your conclusions.

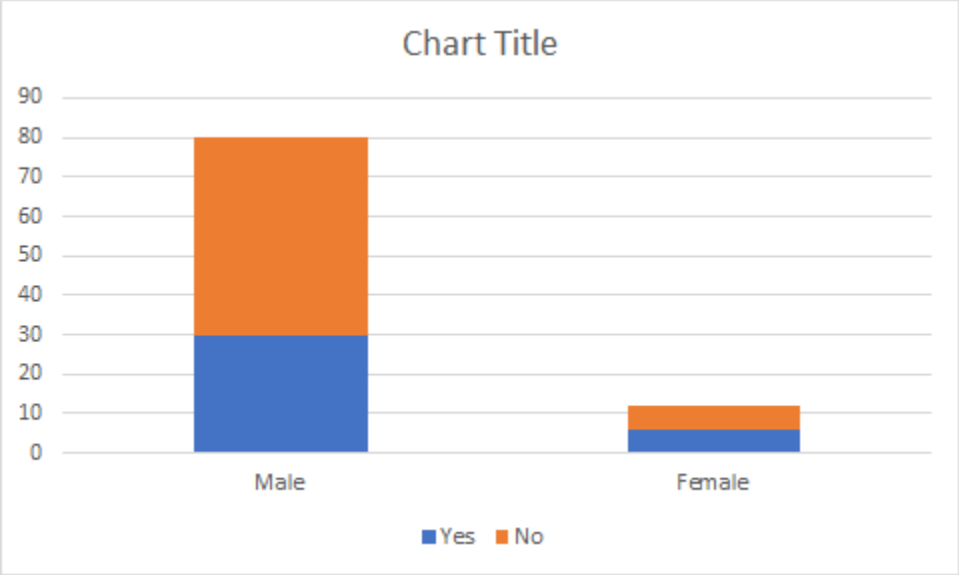
41. A marketing researcher surveyed 92 individuals, asking them if they liked a new product concept or not. The results are shown below:

	Yes	**No**
Male	30	50
Female	6	6

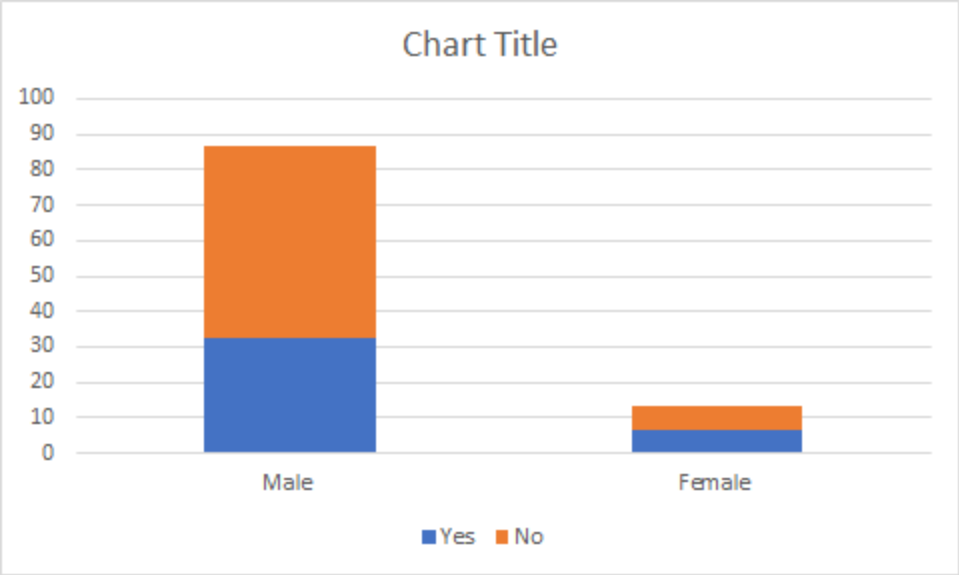
Convert the data into percentages.

	Yes	**No**
Male	33	54
Female	7	7

Then construct a chart of the counts



and a chart of the percentages.



Discuss what each conveys visually and how the different charts may lead to different interpretations of the data.

Both charts have percentage for each bar. Only scales are different.