Basics of Microsoft Excel --Task 1(Part 1)

1. How many democrats did not vote?

==>   Query :   =COUNTIFS(C5:C101,"D",E5:E101,"Not Voting")

        Output: 0

2. How many republicans voted Yea?

==>.   Query :   =COUNTIFS(D2:D98,"R",F2:F98,"Yea")

        Output: 4

3. What's the total number of Yea votes from all senators whose name starts with "B"?

==>   Query: =COUNTIFS(D2:D101,D4,A2:A101,"B*")

        Output: 5

4. How many states voted all Yay?

==>   Query: =50-COUNTA(G9:G34)

        Output: 24

5. How many states had at least 1 non-voting senator?

==>   Query: =COUNTIF(F2:F58,"Not Voting")

        Output: 3

6. How many states have both Republican senators?

==>   Query: =49-COUNTA(G9:G35)

        Output: 22

7. How many states have both Republican and Democrat senators?

==>   Query:

=SUM(1/COUNTIF(C2:C101,C2:C101))-SUM(IF(B2:B101=B2,1/COUNTIF(C2:C101,C2:C101),0))

            Output: 73.5

8. How many Senators have their names started with W?

==>   Query: =COUNTIFS(C2:C98,"W*")

            Output: 0

9. What is the vote ratio of Democrats' major decision to Republicans' major decision ?

==>   Query:

Democrat's major decision =	Yay {48}
Republican's major decision =	Nay{42}

Output: 1.142857143

10. What is the highest absolute difference in percentage between yea and nay senators among the different parties?

==>   Query:

Number of D voted"Yea"		48	Number of D voted"Nay"		0
Number of R voted"Yea"		4	Number of R voted"Nay"		42
Percentage of D	92.3076923		Percentage of D	0	
Percentage of R	7.69230769		Percentage of R	100	
Absolute Diff of Yea	84.6153846		Absolute Diff of Nay	100	

Output: Yea = 84.61 , Nay = 100

11. How many Democrats voted Yea?

==>   Query: =COUNTIFS(D2:D101,"D")

Output: 48

12. How many states voted all Nay?

==>   Query: =50-COUNTA(G6:G38)

Output: 17

13. How many states have both Democrat senators?

==>   Query: =49-COUNTA(G9:G36)

             Output: 21

14. How many senators did not vote?

==>   Query: =COUNTIF(F2:F98,"Not Voting")

             Output: 4

15. How many states had at least 1 senator not voted?

==>   Query: =COUNTIF(F2:F58,"Not Voting")

             Output: 3
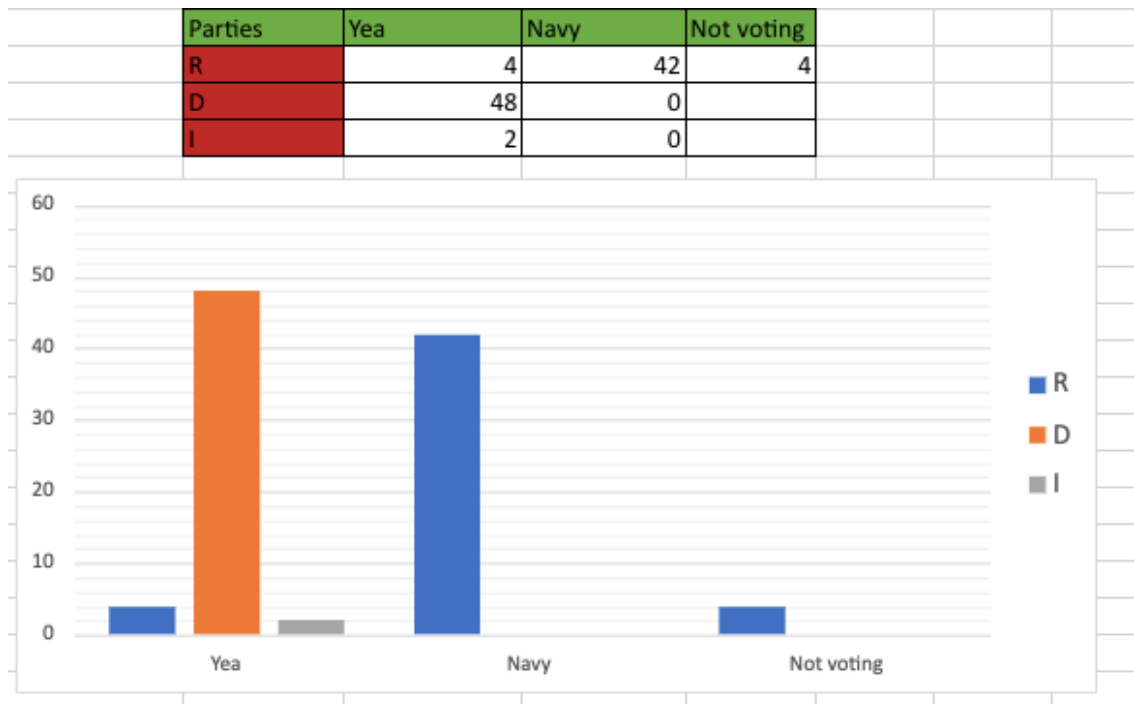
16. The ratio of the number of rows to the number of columns in your dataset?

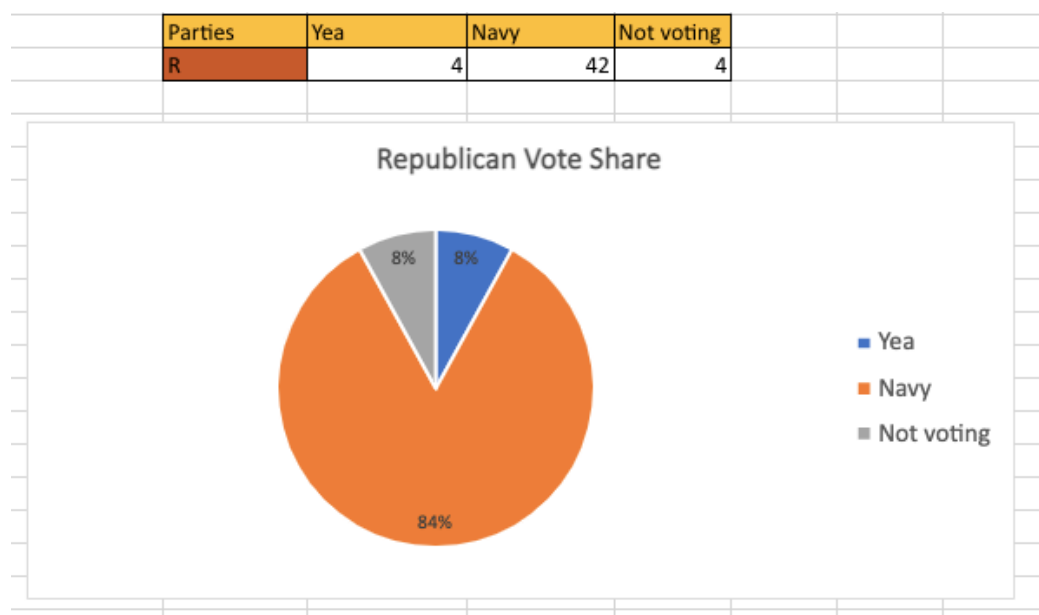==>   Query: =101/7

             Output: 14.4285

17. Plot the stacked bar chart with the parties(x-axis) and the number of votes(y-axis)with stacks such as 'Yea' and 'Nay'?

==>

Parties	Yea	Navy	Not voting
R	4	42	4
D	48	0	
I	2	0	

18. Pie chart of Republican votes?

==>

Parties	Yea	Navy	Not voting
R	4	42	4

19. Plot the crosstab of Party and Yea/Nay as a heat map with the values

==>

Row Labels	Sum of Yea	Sum of Navy
D	48	0
I	2	0
R	4	42
Gand Total	54	42

20. Pie chart representing the number of states in which Democrats domination,Republican domination, and Democrats, Republicans in equal?

==>

	R Domination	D Domination	R,D Equal	Others
States	22	21	5	2