

DR. ALVIN'S PUBLICATIONS

SCENARIO MANAGER, DATA TABLES, GOAL SEEK & FORECAST SHEET

WITH EXCEL
DR. ALVIN ANG



1 | PAGE

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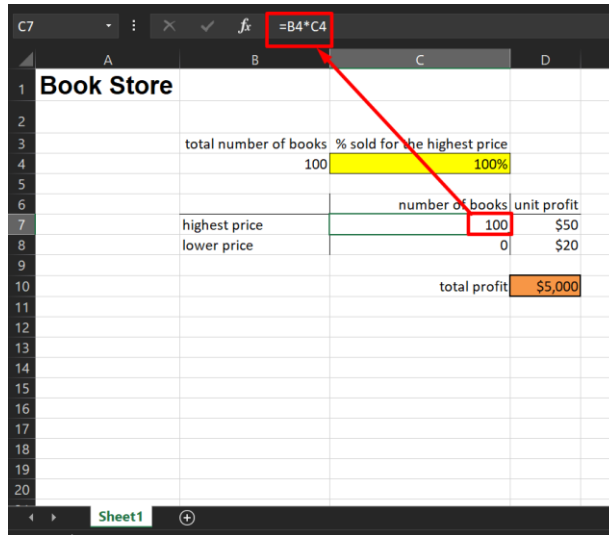
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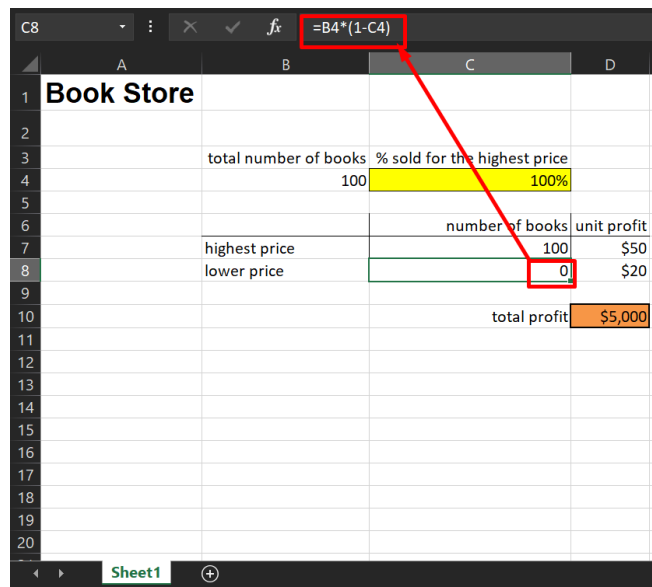
I. SCENARIO MANAGER

<https://www.alvinang.sg/s/what-if.xlsx>

A. PREVIEWING DATA



	A	B	C	D	E
1	Book Store				
2					
3		total number of books	% sold for the highest price		
4		100	100%		
5					
6			number of books	unit profit	
7		highest price	100	\$50	
8		lower price	0	\$20	
9					
10			total profit	\$5,000	
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					



	A	B	C	D	E
1	Book Store				
2					
3		total number of books	% sold for the highest price		
4		100	100%		
5					
6			number of books	unit profit	
7		highest price	100	\$50	
8		lower price	0	\$20	
9					
10			total profit	\$5,000	
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

	A	B	C	D	E
1	Book Store				
2					
3		total number of books	% sold for the highest price		
4		100	100%		
5					
6			number of books	unit profit	
7		highest price	100	\$50	
8		lower price	0	\$20	
9					
10			total profit	\$5,000	
11					
12					

what-if - Excel

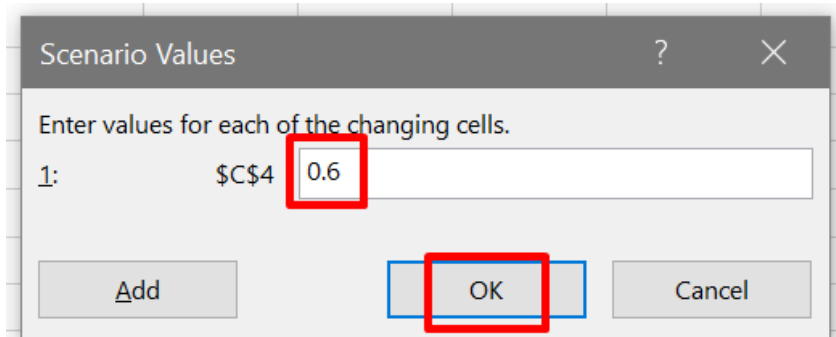
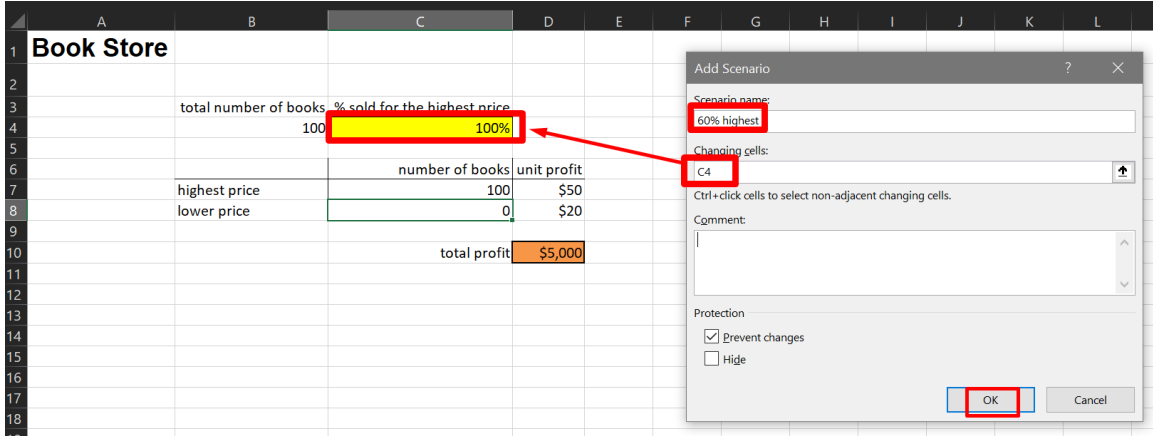
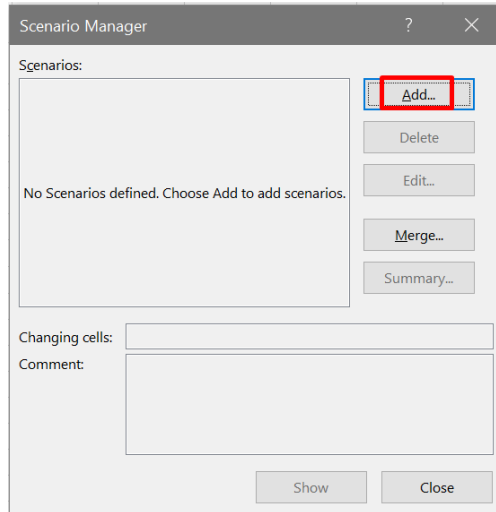
Formulas **Data** Review View Add-ins Help Tell me what you want to do

Queries & Connections Sort Filter Advanced Text to Columns Data Tools What-If Analysis Forecast Sheet Subtotal Data Analysis Solver

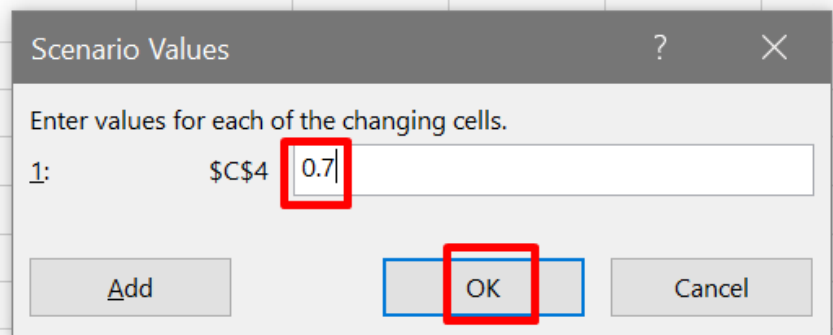
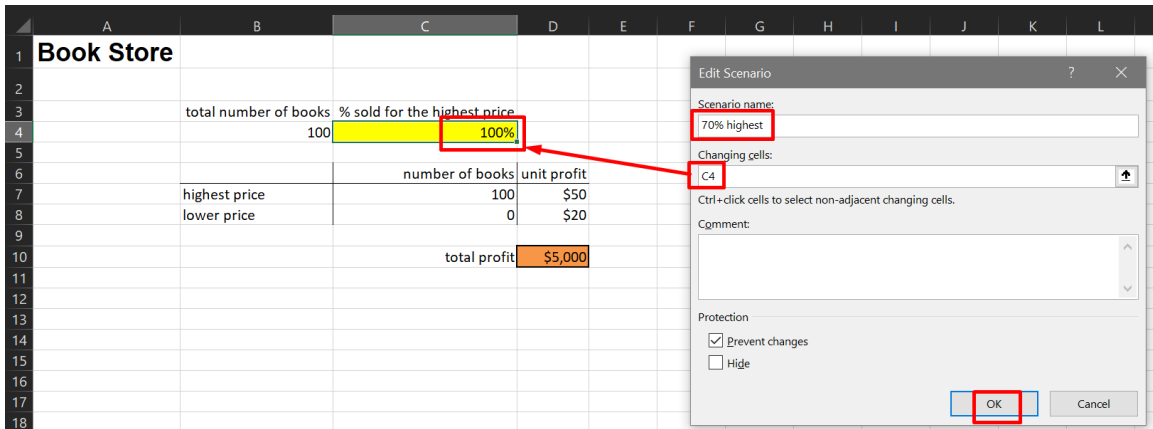
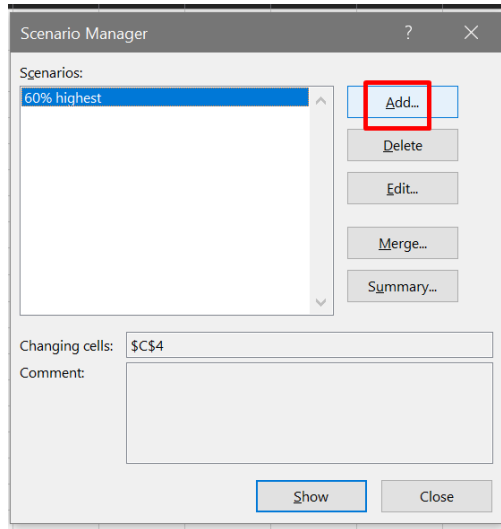
Scenario Manager... Scenario Manager
Create different groups of values or scenarios, and switch between them.

books	% sold for the highest price
100	100%
	number of books
	100
	0
	unit profit
	\$50
	\$20
	total profit
	\$5,000

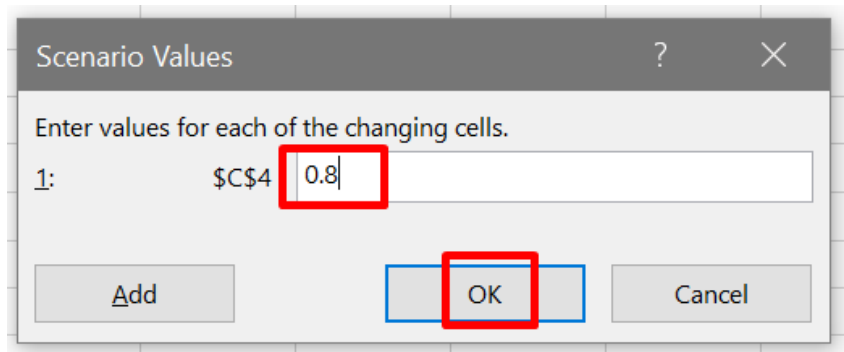
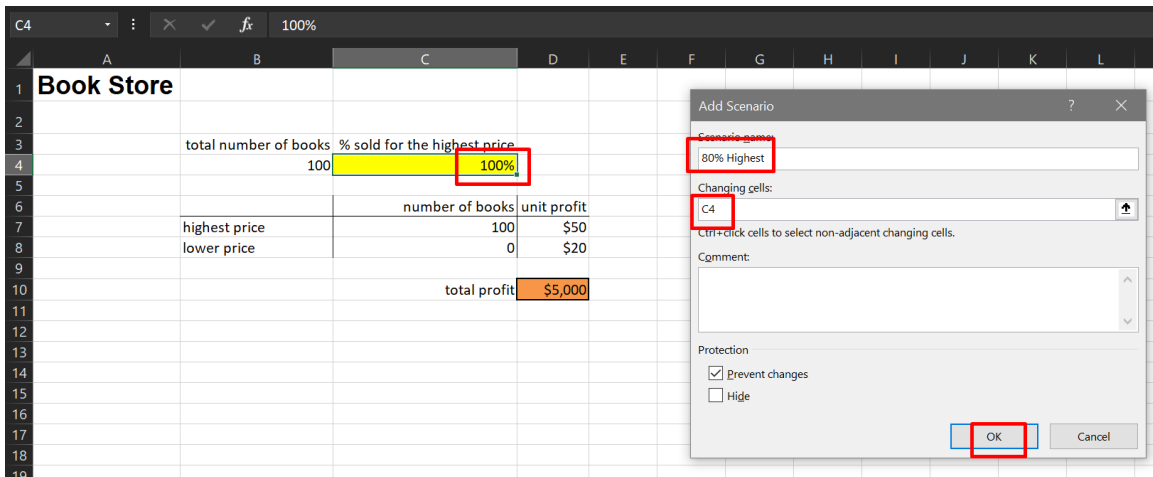
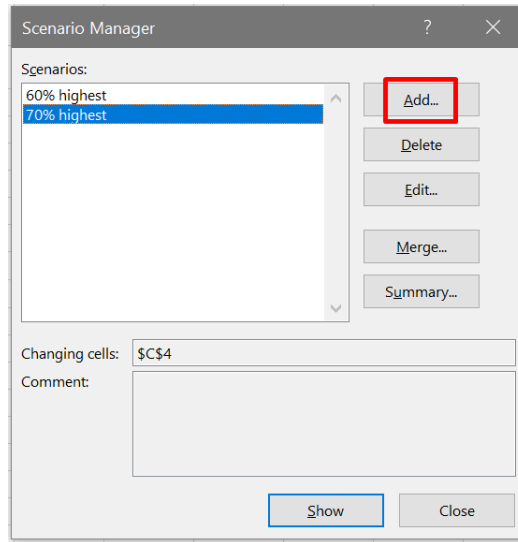
B. 60% HIGHEST



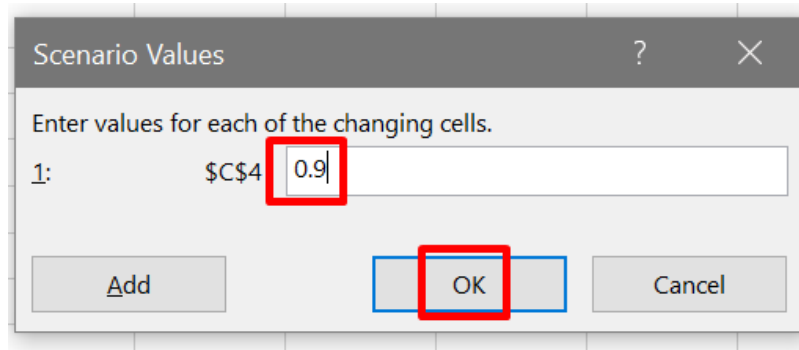
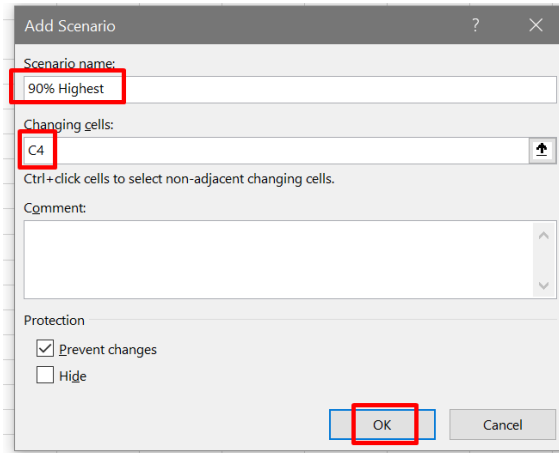
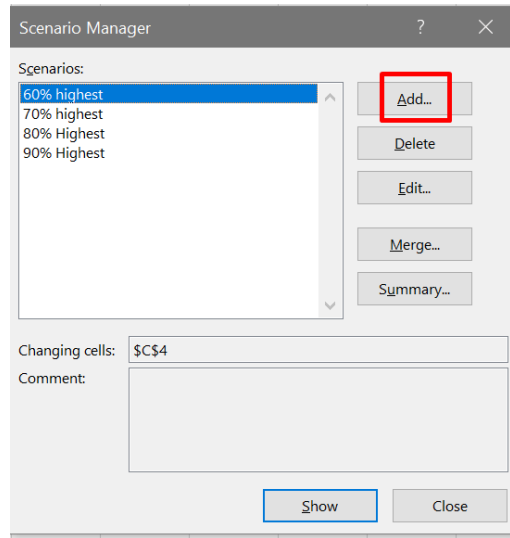
C. 70% HIGHEST



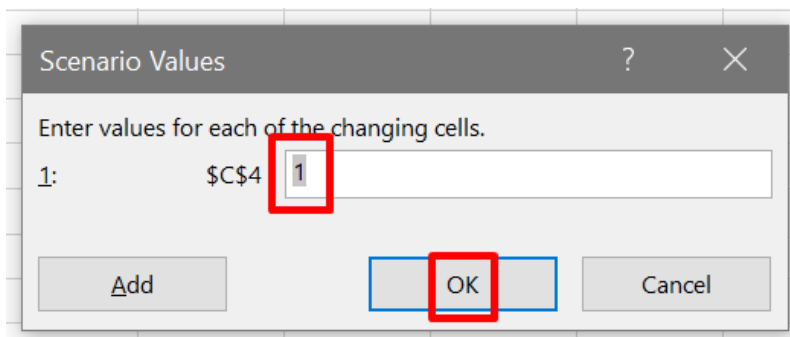
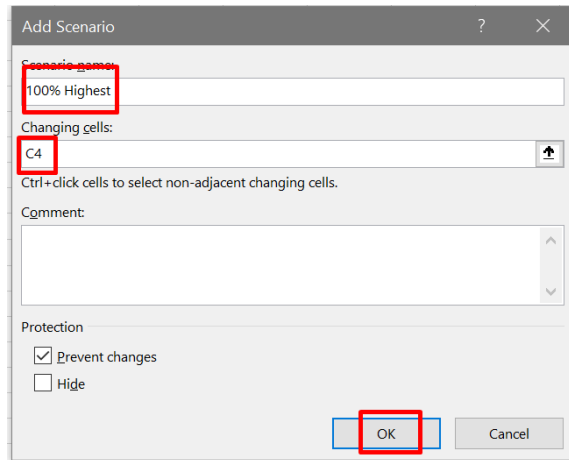
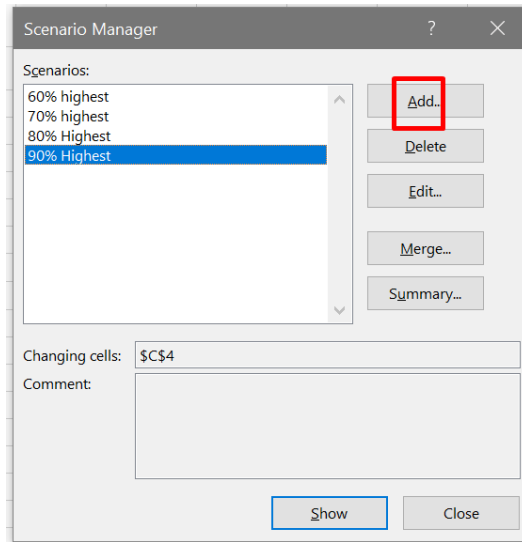
D. 80% HIGHEST



E. 90% HIGHEST



F. 100% HIGHEST

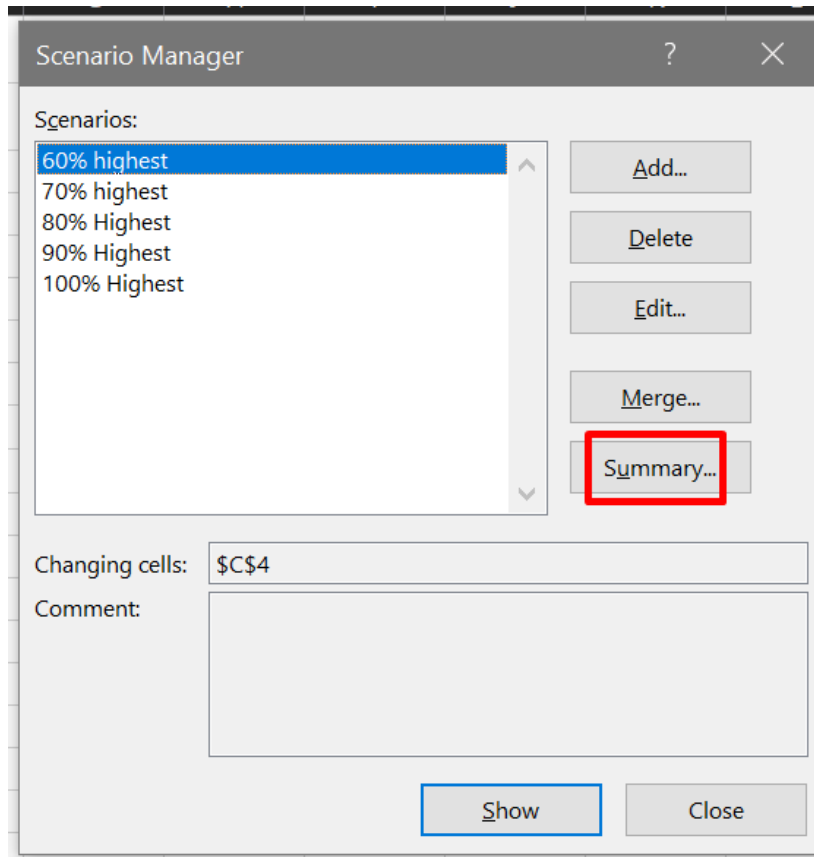


G. TOGGLE VALUES

click around and toggle with these values
then click on SHOW to see the VALUES change....

	A	B	C	D	E	F	G	H	I	J	K	L
1	Book Store											
2												
3		total number of books	% sold for the highest price									
4		100	70%									
5												
6			number of books	unit profit								
7		highest price	70	\$50								
8		lower price	30	\$20								
9												
10			total profit	\$4,100								
11												
12												
13												
14												
15												
16												
17												
18												
19												

H. SUMMARY SHEET



Book Store				
	total number of books	% sold for the highest price		
	100	60%		
		number of books	unit profit	
	highest price	60	\$50	
	lower price	40	\$20	
		total profit:	\$3,800	

Scenario Summary

Report type:

- Scenario summary
- Scenario PivotTable report

Result cells:

D10

Buttons: OK, Cancel

Scenario Summary

	Current Values:	60% highest	70% highest	80% Highest	90% Highest	100% Highest
Changing Cells:						
\$C\$4	60%	60%	70%	80%	90%	100%
Result Cells:						
\$D\$10	\$3,800	\$3,800	\$4,100	\$4,400	\$4,700	\$5,000

Notes: Current Values column represents values of changing cells at time Scenario Summary Report was created. Changing cells for each scenario are highlighted in gray.

SUMMARY SHEET CREATED

II. DATA TABLES

<https://www.alvinang.sg/s/what-if.xlsx>

A. PREVIEWING DATA

Book Store			
	total number of books	% sold for the highest price	
	100	100%	
		number of books	unit profit
	highest price	100	\$50
	lower price	0	\$20
		total profit	\$5,000

Book Store			
	total number of books	% sold for the highest price	
	100	100%	
		number of books	unit profit
	highest price	100	\$50
	lower price	0	\$20
		total profit	\$5,000

	A	B	C	D	E
1	Book Store				
2					
3		total number of books	% sold for the highest price		
4		100	100%		
5					
6			number of books	unit profit	
7		highest price	100	\$50	
8		lower price	0	\$20	
9					
10			total profit	\$5,000	
11					
12					

B. ONE VARIABLE DATA TABLE

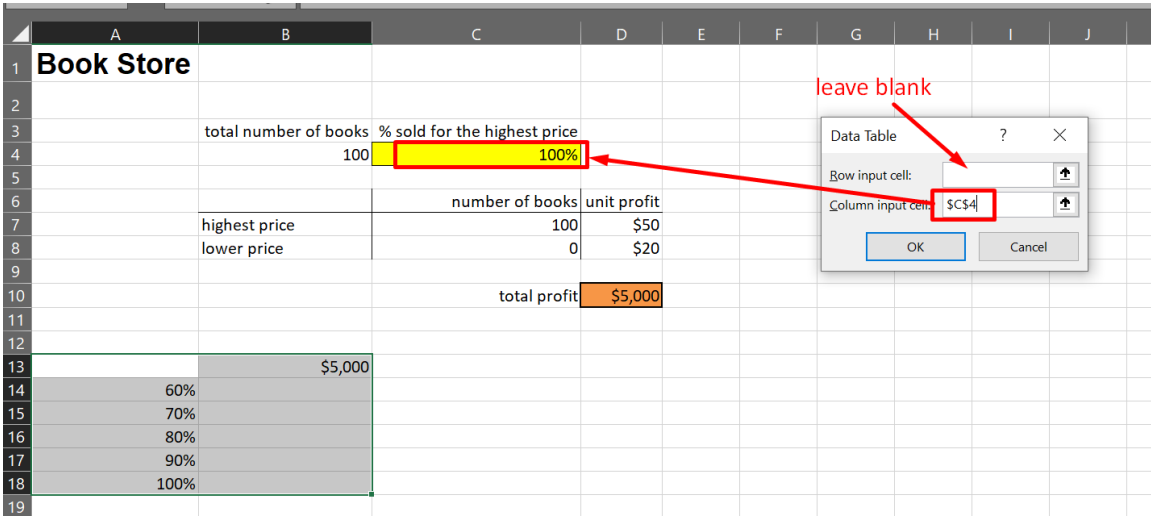
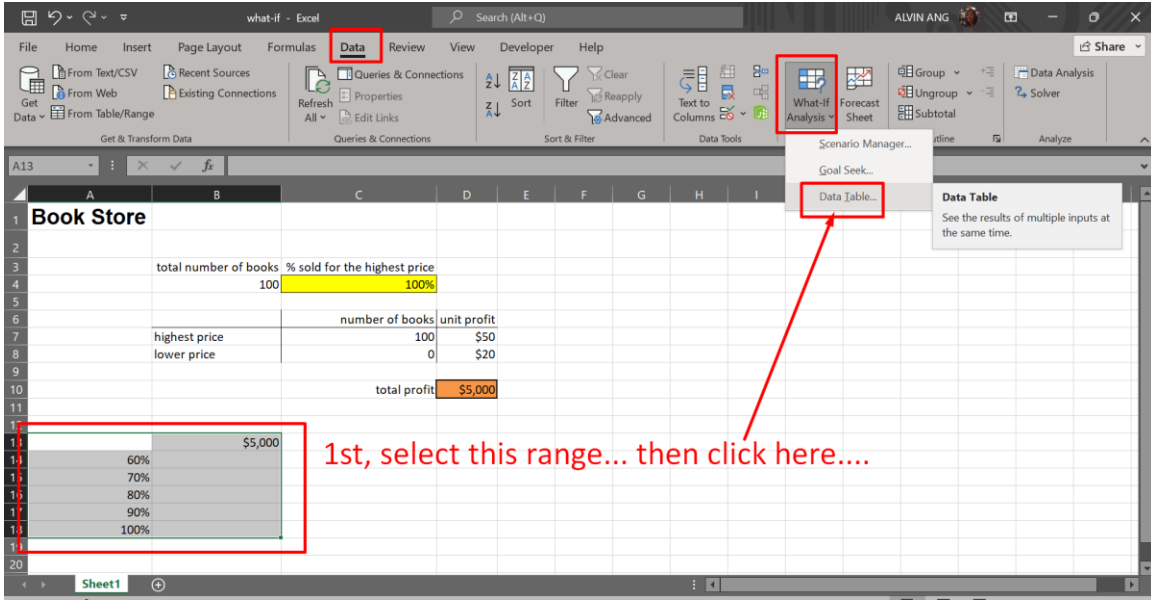
The screenshot shows an Excel spreadsheet with the following data table:

	A	B	C	D	E
1	Book Store				
2					
3		total number of books	% sold for the highest price		
4		100		100%	
5					
6			number of books	unit profit	
7	highest price		100	\$50	
8	lower price		0	\$20	
9					
10			total profit	\$5,000	
11					
12					
13		\$5,000			
14					
15					
16					
17					
18					
19					
20					

type "=D10" into cell B13

Book Store			
	total number of books	% sold for the highest price	
	100	100%	
		number of books	unit profit
	highest price	100	\$50
	lower price	0	\$20
		total profit	\$5,000
			\$5,000
	60%		
	70%		
	80%		
	90%		
	100%		

type in 60%, 70% etc...
into cells A14, A15, etc...



Book Store			
	total number of books	% sold for the highest price	
	100	100%	
		number of books	unit profit
	highest price	100	\$50
	lower price	0	\$20
		total profit	\$5,000
		\$5,000	
	60%	3800	
	70%	4100	
	80%	4400	
	90%	4700	
	100%	5000	

	\$5,000
60%	3800
70%	4100
80%	4400
90%	4700
100%	5000

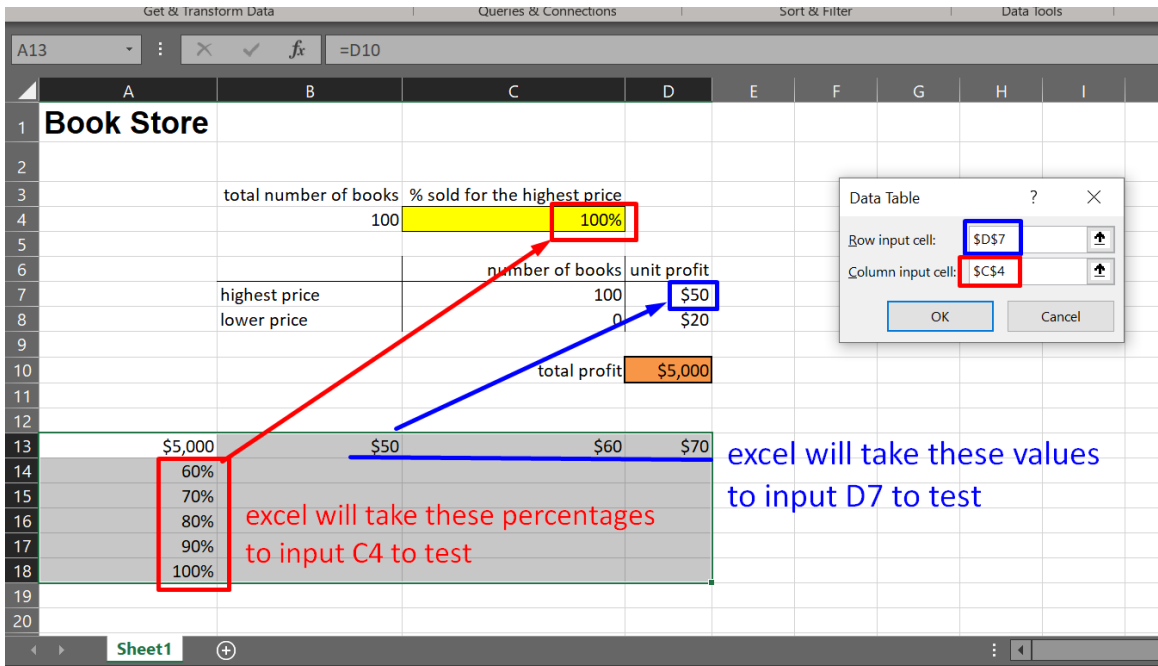
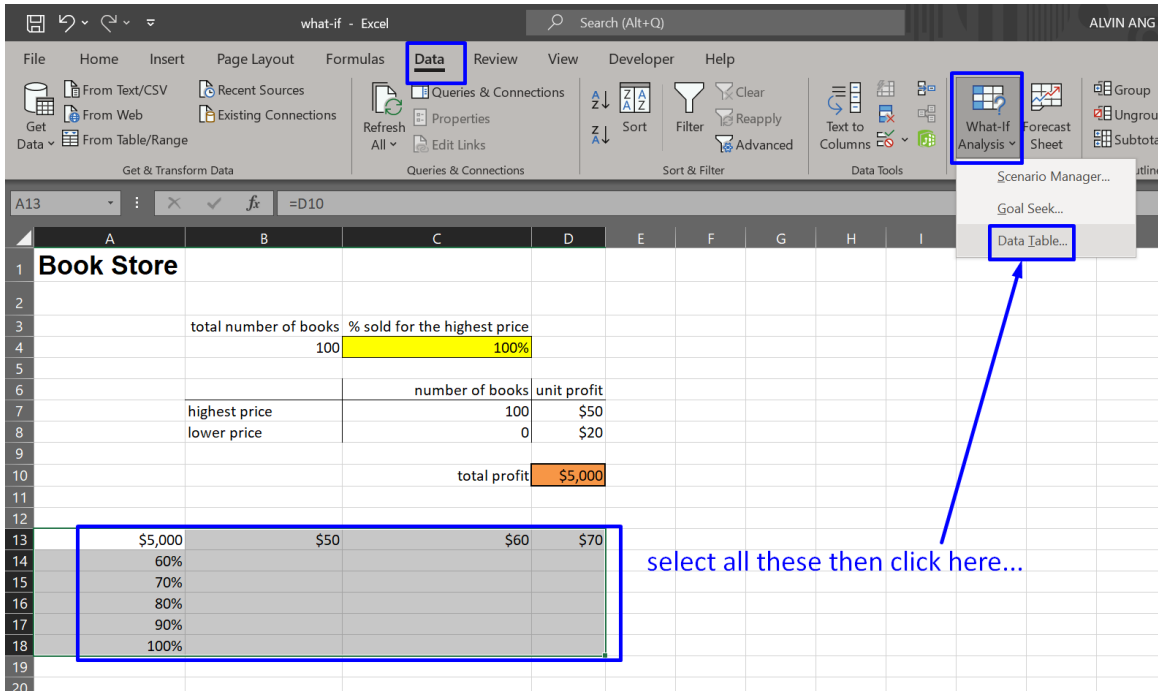
if u sell 60% for highest price

you profit \$3800

C. TWO VARIABLES DATA TABLE

Open a new <https://www.alvinang.sg/s/what-if.xlsx> again

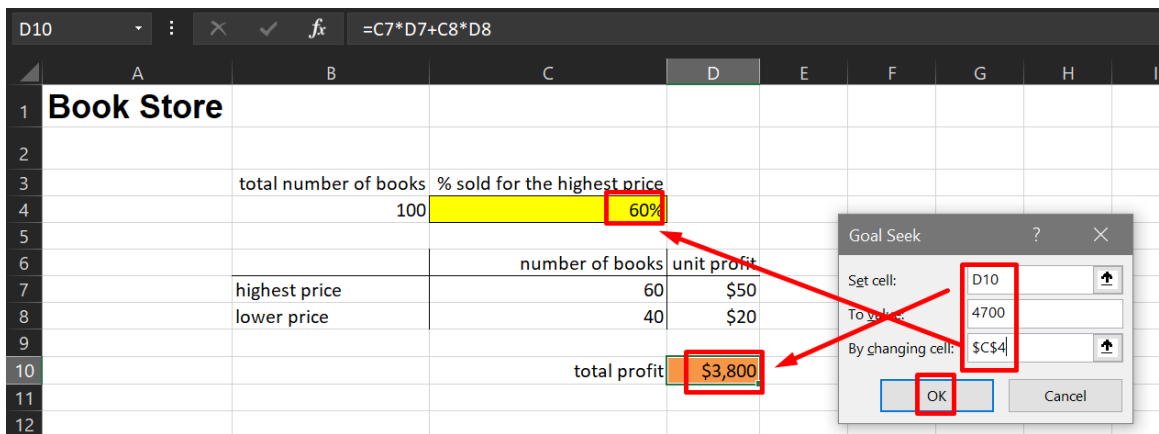
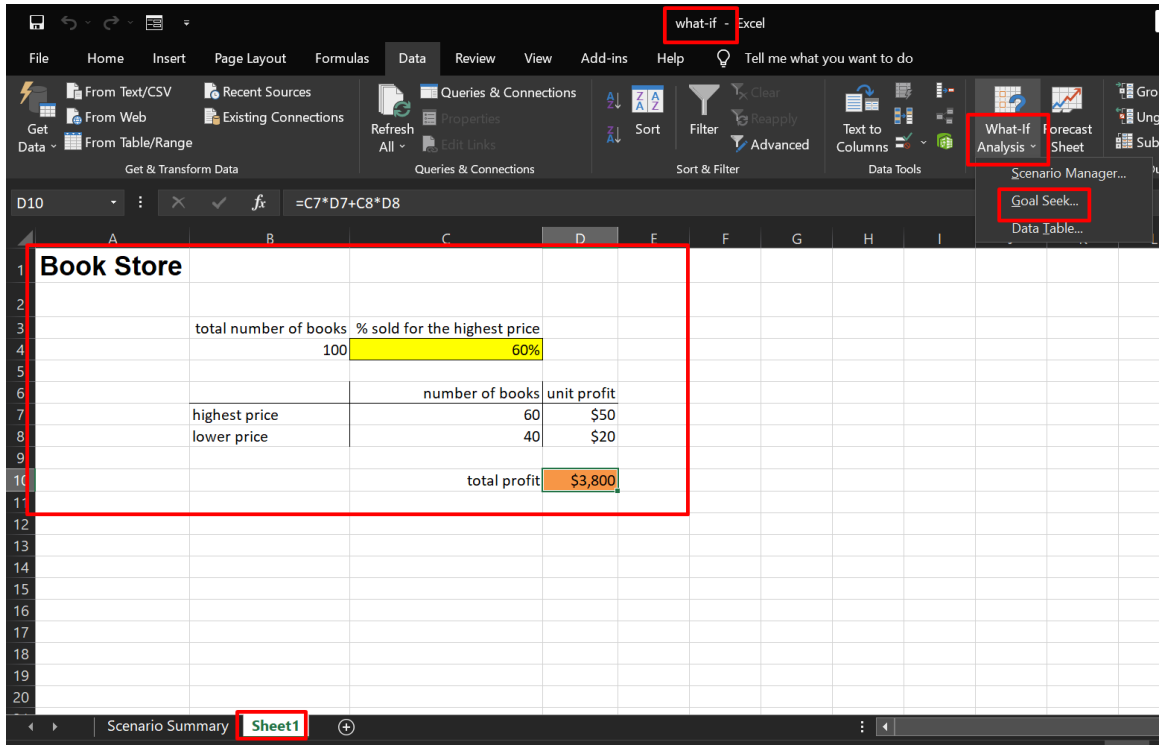
	A	B	C	D	E
1	Book Store				
2					
3		total number of books	% sold for the highest price		
4		100	100%		
5					
6			number of books	unit profit	
7		highest price	100	\$50	
8		lower price	0	\$20	
9					
10			total profit	\$5,000	
11					
12					
13	\$5,000		\$50	\$60	\$70
14	60%				
15	70%				
16	80%				
17	90%				
18	100%				
19					
20					



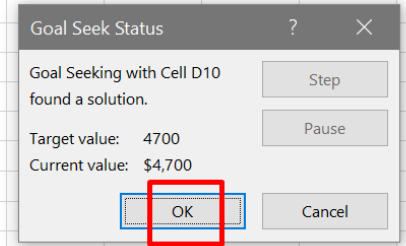
A	B	C	D	E	F	G	H
Book Store							
	total number of books	% sold for the highest price					
	100	100%					
		number of books	unit profit				
	highest price	100	\$50				
	lower price	0	\$20				
		total profit	\$5,000				
							if u sell 60% at \$50 unit price u profit \$3800
\$5,000	\$50	\$60	\$70				
60%	3800	4400	5000				
70%	4100	4800	5500				
80%	4400	5200	6000				if u sell 80% at \$60 unit price u profit \$5200
90%	4700	5600	6500				
100%	5000	6000	7000				

III. GOAL SEEK

<https://www.alvinang.sg/s/what-if.xlsx>



	A	B	C	D	E	F	G	H	I
1	Book Store								
2									
3		total number of books	% sold for the highest price						
4		100	90%						
5									
6			number of books	unit profit					
7		highest price	90	\$50					
8		lower price	10	\$20					
9									
10			total profit	\$4,700					
11									
12									



This means that in order to achieve \$4,700 total profit, you need to sell 90 books at highest price.

You may experiment with other values (what is the total profit you want?)

And see how many books GOAL SEEK asks you to sell....

A. EXAMPLE 1

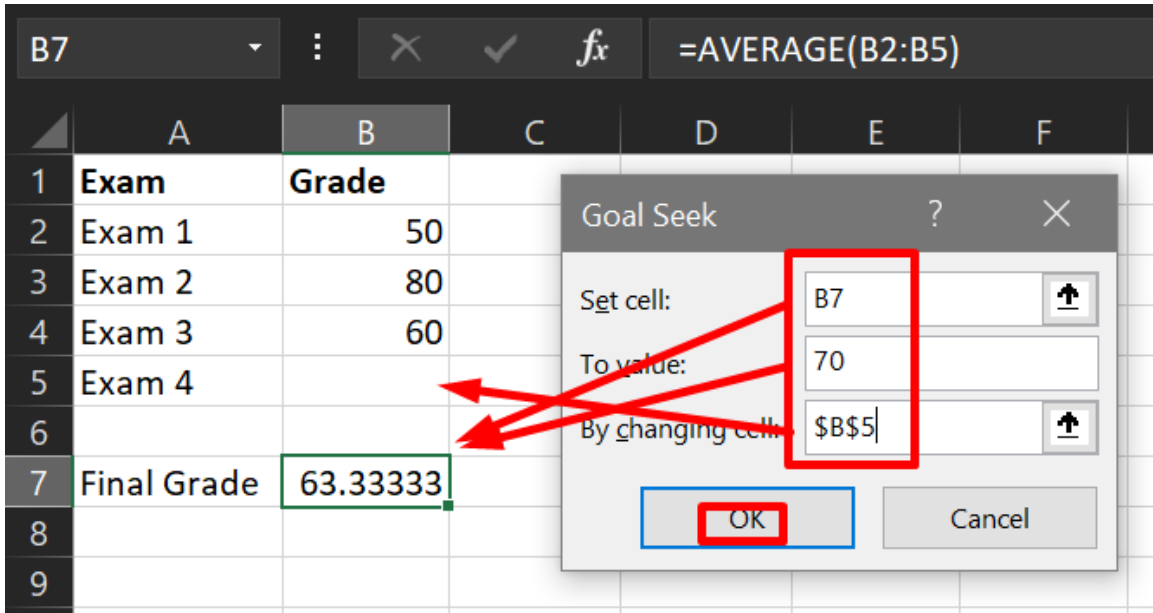
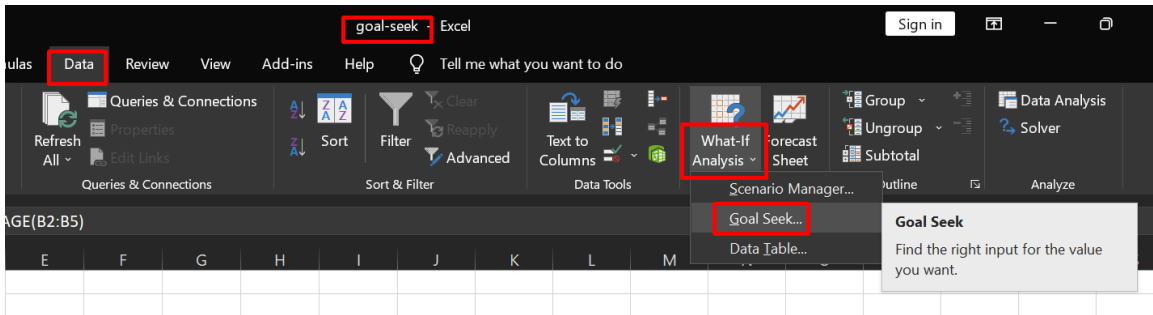
<https://www.alvinang.sg/s/goal-seek.xlsx>

1. PREVIEWING THE DATA

The screenshot displays the Microsoft Excel interface with the following data and settings:

Exam	Grade	C	D	E	F	G	H	I	J
Exam 1	50								
Exam 2	80								
Exam 3	60								
Exam 4									
Final Grade	63.33333								

The formula bar for cell B7 contains the formula: `=AVERAGE(B2:B5)`. The status bar at the bottom indicates the active cell is B7 and the goal seek example is "Goal Seek Example 1".



	A	B	C	D	E	F	G
1	Exam	Grade					
2	Exam 1	50					
3	Exam 2	80					
4	Exam 3	60					
5	Exam 4	0.08					
6							
7	Final Grade	47.52					
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

Goal Seek Status

Goal Seeking with Cell B7 on iteration #7.

Target value: 70
Current value: 47.49

Step

Pause

OK Cancel

u will see the values running for a while... u can see the change...

Goal Seek Example 1

	A	B	C	D	E	F	G	H	I	J	K	L
1	Exam	Grade										
2	Exam 1	50										
3	Exam 2	80										
4	Exam 3	60										
5	Exam 4	90										
6												
7	Final Grade	70										
8												
9												

Goal Seek Status

Goal Seeking with Cell B7 found a solution.

Target value: 70
Current value: 70

Step

Pause

OK Cancel

if u want to achieve Final Average Grade of 70 , u need to achieve 90 for Exam 4

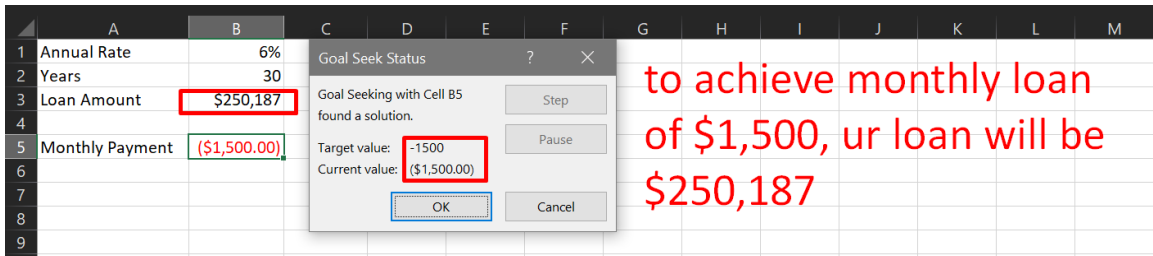
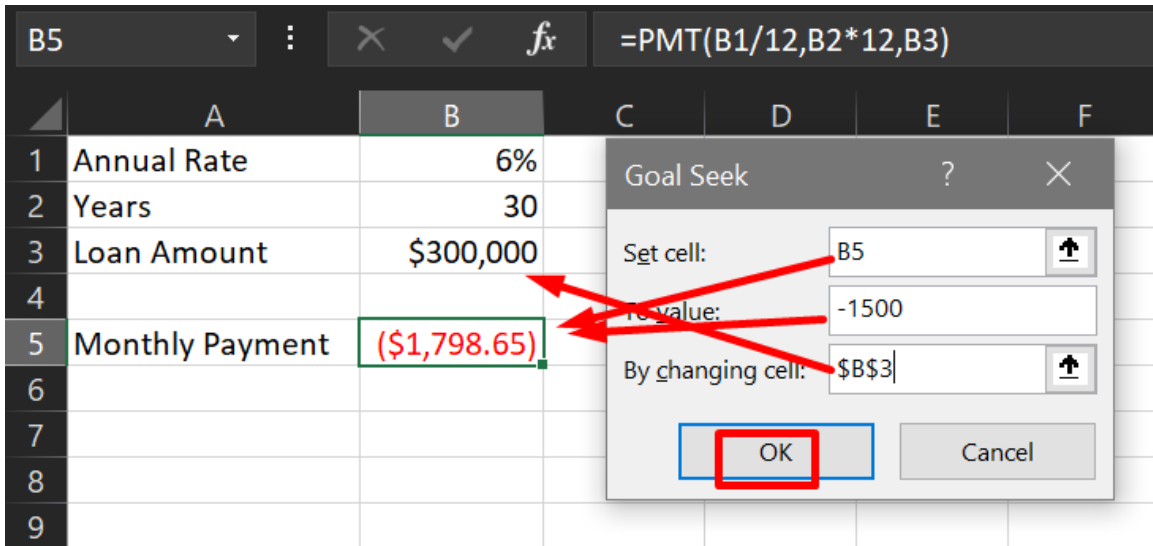
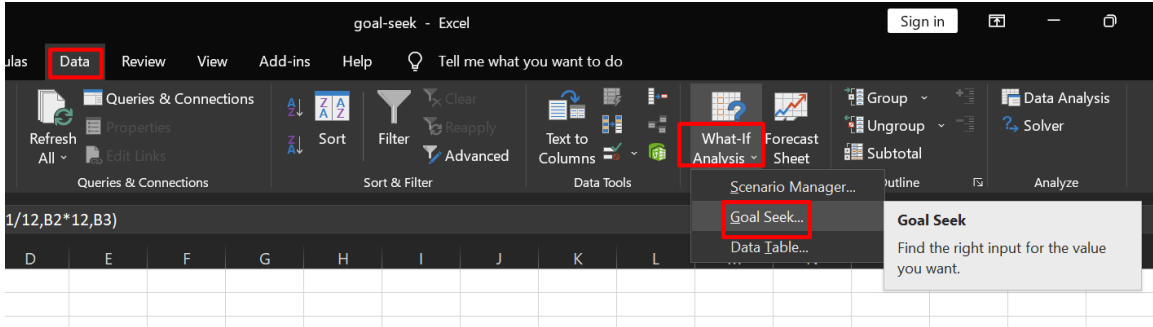
B. EXAMPLE 2

	A	B	C	D	E
1	Annual Rate	6%			
2	Years	30			
3	Loan Amount	\$300,000			
4					
5	Monthly Payment	(\$1,798.65)			
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

PMT stands for
PAYMENT for MONTHLY
loan.....
the higher the loan
amount, the higher
the monthly....

Goal Seek Example 1 | **Goal Seek Example 2** | Goal Se

Ready Accessibility: Good to go



IV. FORECAST SHEET

<https://www.alvinang.sg/s/forecast-sheet.xlsx>

Use historical data to create a visual forecast worksheet

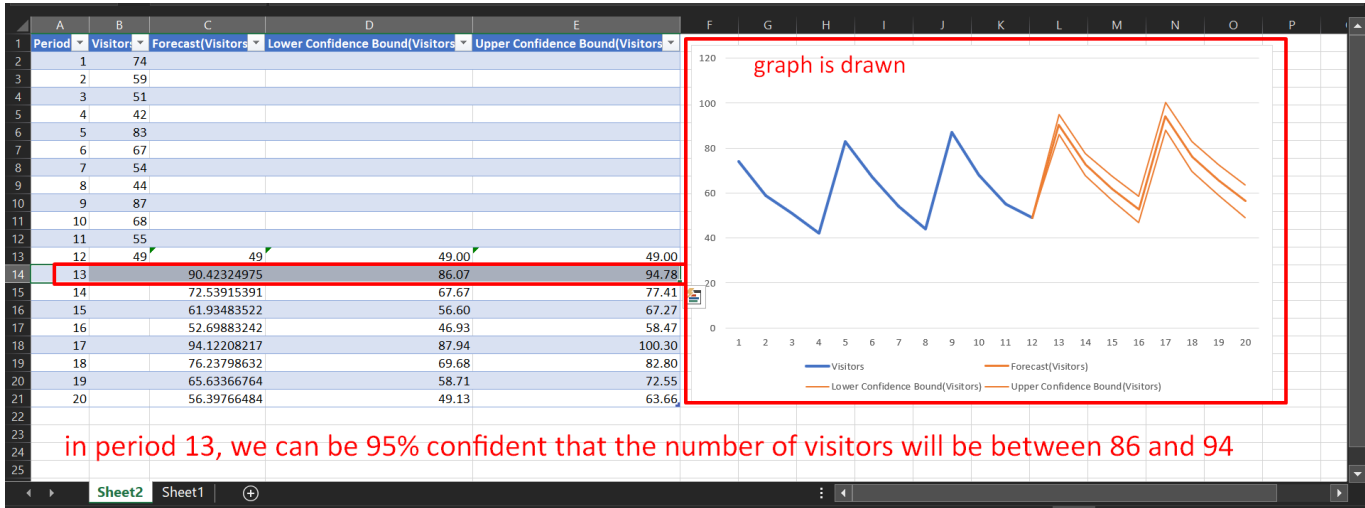
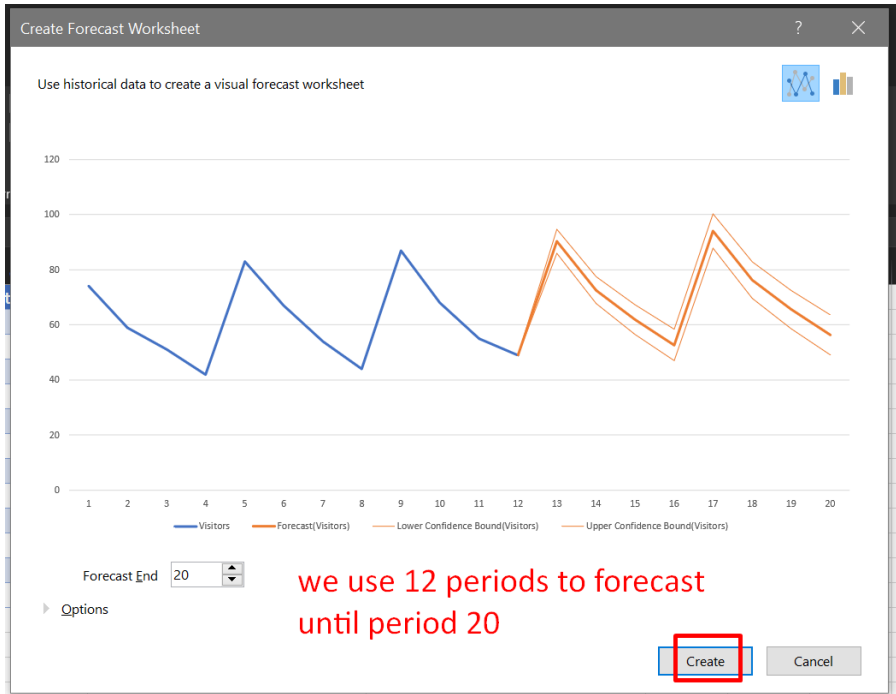
Period	Visitors
1	74
2	59
3	51
4	42
5	83
6	67
7	54
8	44
9	87
10	68
11	55
12	49

Forecast End: 20
Forecast Start: 12
Confidence Interval: 95%
Seasonality: Detect Automatically
Timeline Range: Sheet1!\$A\$1:\$A\$13
Values Range: Sheet1!\$B\$1:\$B\$13
Fill Missing Points Using: Interpolation
Aggregate Duplicates Using: Average

Options

select this data and click here

u may choose the forecast options



ABOUT DR. ALVIN ANG



Dr. Alvin Ang earned his Ph.D., Masters and Bachelor degrees from NTU, Singapore. He is a scientist, entrepreneur, as well as a personal/business advisor. More about him at www.AlvinAng.sg.