



# Graphing With Excel

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# ROC Curve Graph

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Diagonal		% Signal	Stimulus Speed 1.0		Stimulus Speed 2.5	
FA	HIT		FA	Hit	FA	Hit
0	0	10%	0.04	0.24	0.01	0.1
1	1	50%	0.3	0.69	0.12	0.87
		90%	0.65	0.92	0.8	0.97

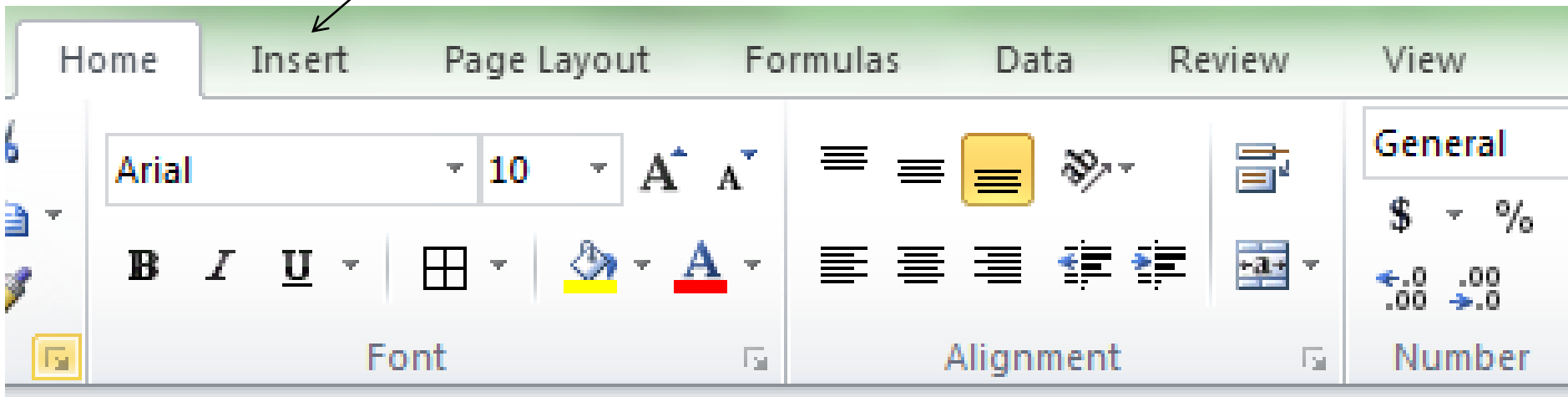


# Select Data for Diagonal

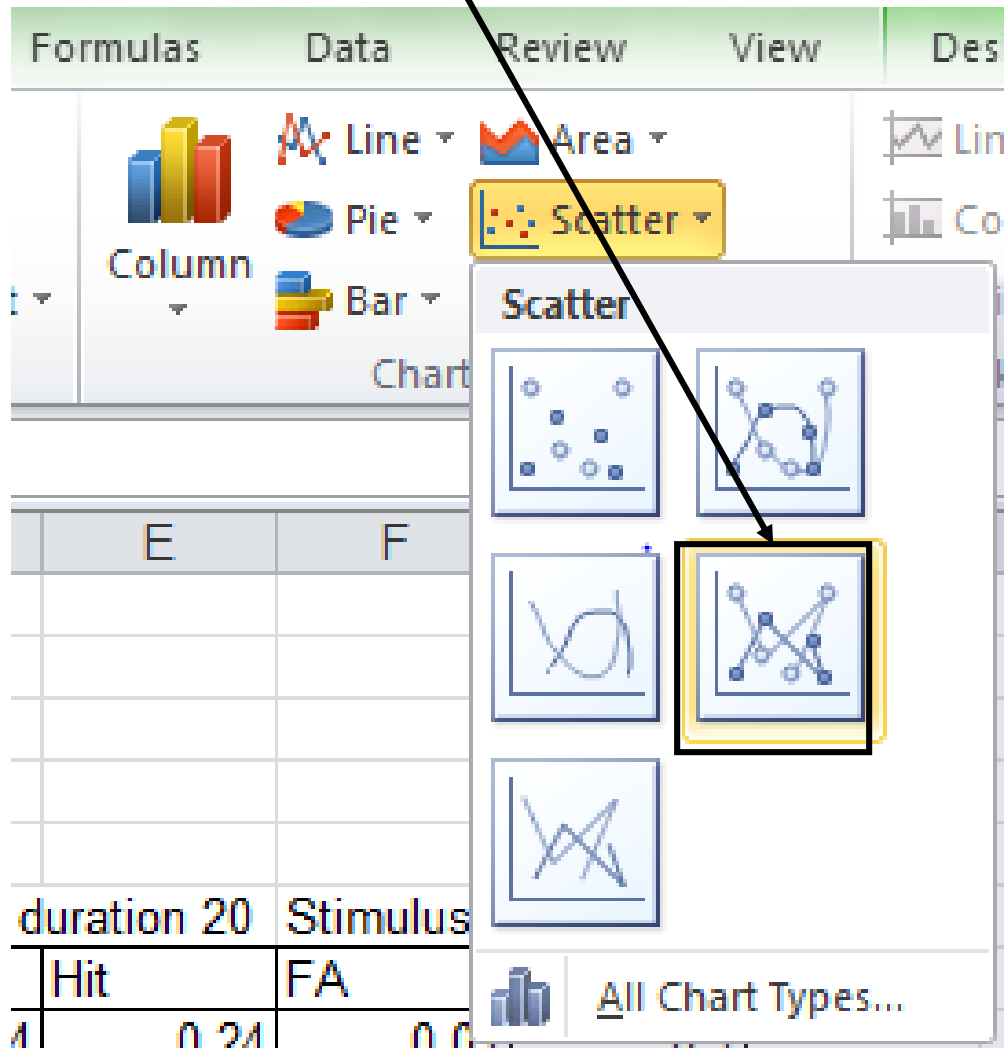
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Diagonal		% Signal	Stimulus Speed 1.0		Stimulus Speed 2.5	
FA	HIT		FA	Hit	FA	Hit
0	0	10%	0.04	0.24	0.01	0.1
1	1	50%	0.3	0.69	0.12	0.87
		90%	0.65	0.92	0.8	0.97

# Select Insert Tab

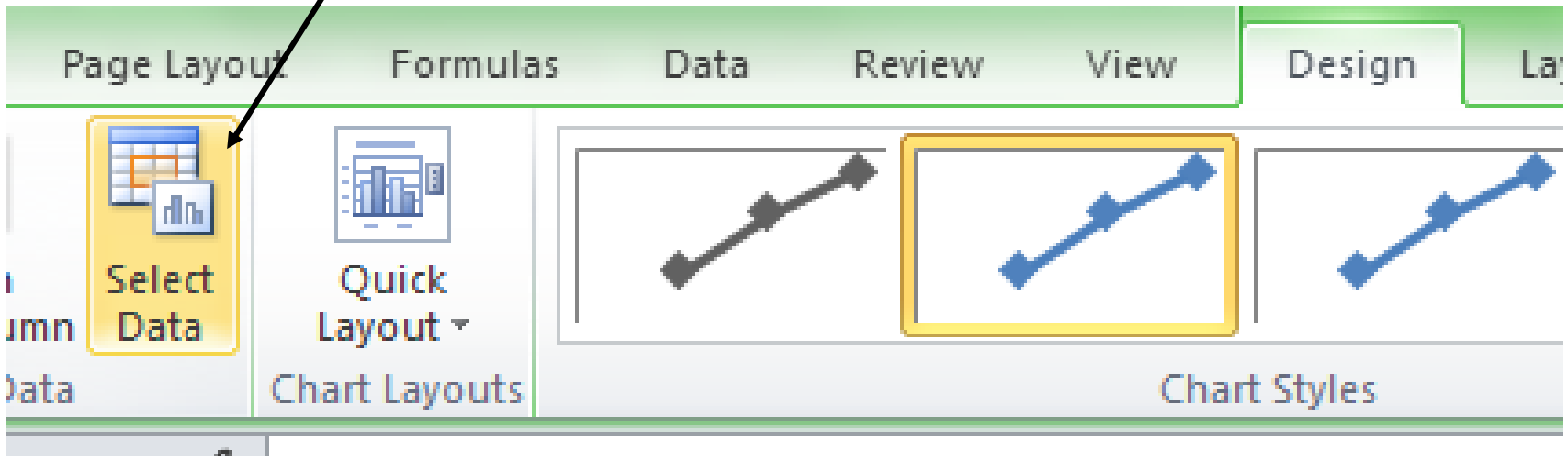


# Insert a Line Chart



Select "Scatter with  
Straight Lines and  
Markers"  
Highlighted

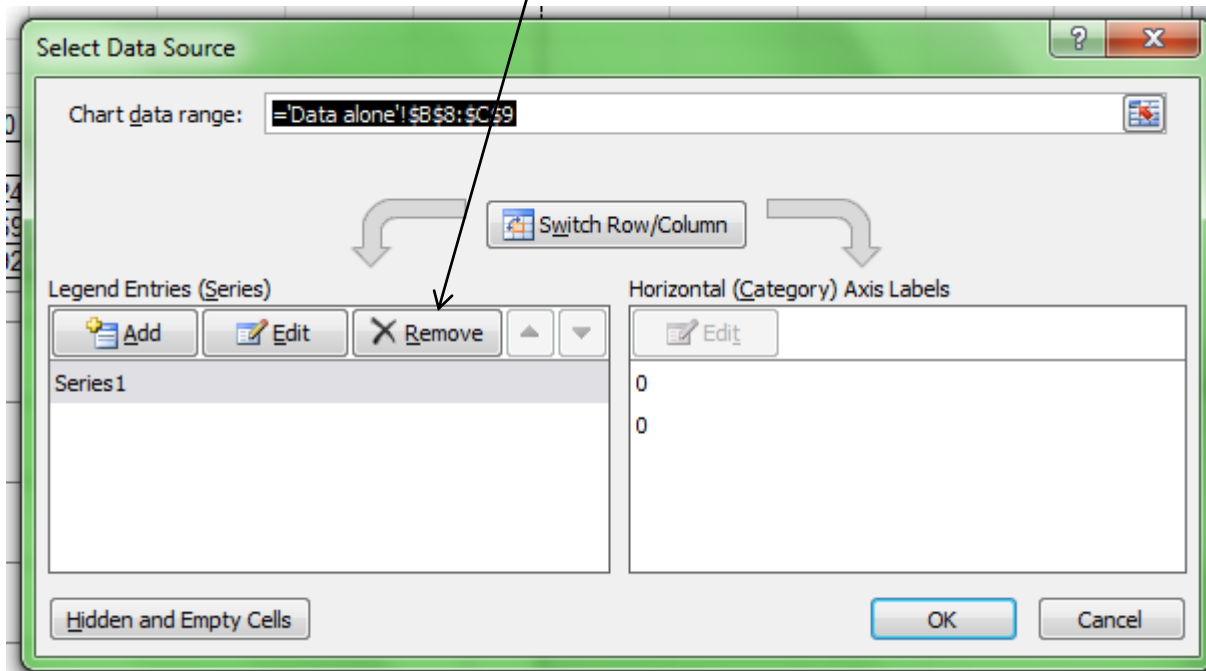
# Select Data (on Design Tab)



The design tab should come up immediately is not select it.  
Make sure you have selected the chart.

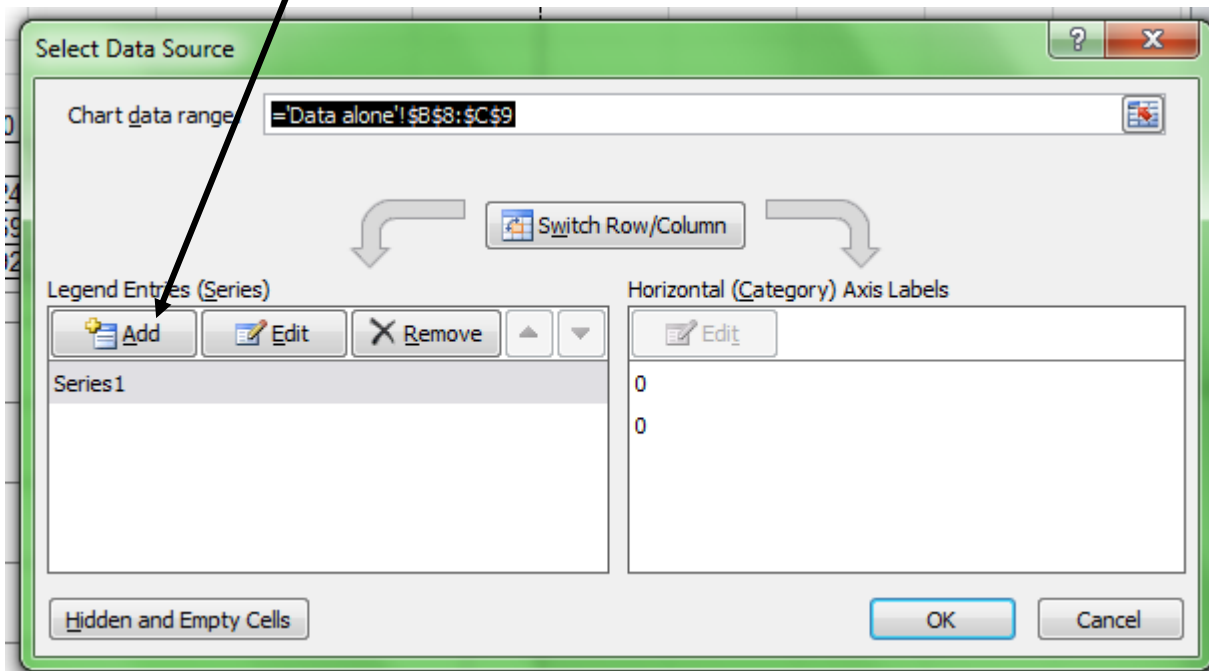
# Remove The Data It Thinks it Has

Select "Series 1" and click the "Remove" button

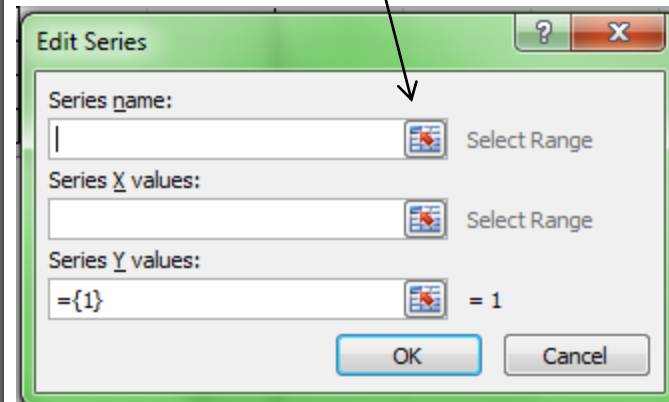


# Adding the Diagonal.

Select the Add Button



Then this box pops up and press this button.



Then select the cell with the word Diagonal in it.



# Add the X-Axis Data (False Alarms)

Click on this button

Series name:

Series X values:

Series Y values:  = 1

Then highlight the two "FA" values under the diagonal heading

Diagonal		% Signal	Stimulus Speed 1.0		Stimulus Speed 2.5	
FA	HIT		FA	Hit	FA	Hit
0	0	10%	0.04	0.24	0.01	0.1
1	1	50%	0	0	0	0
		90%	0.6	0.6	0.6	0.6

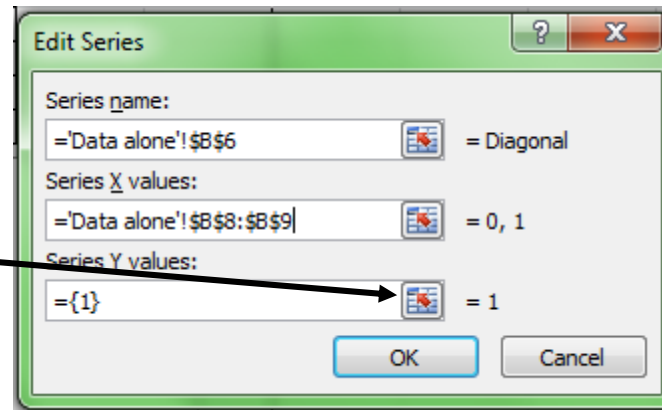
Edit Series

= 'Data alone'!\$B\$8:\$B\$9

Diagonal

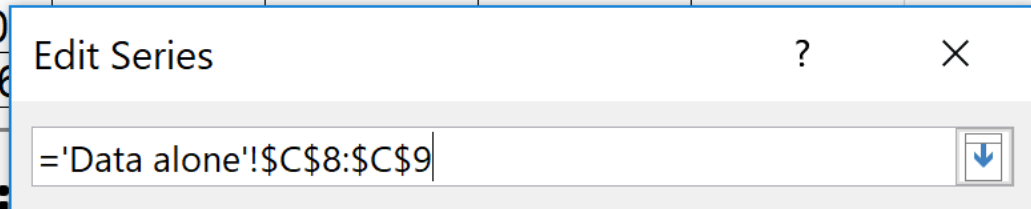
# Do the Same for Y-Axis Values (Hits)

Click this button



Highlight the Hit data under the Diagonal heading

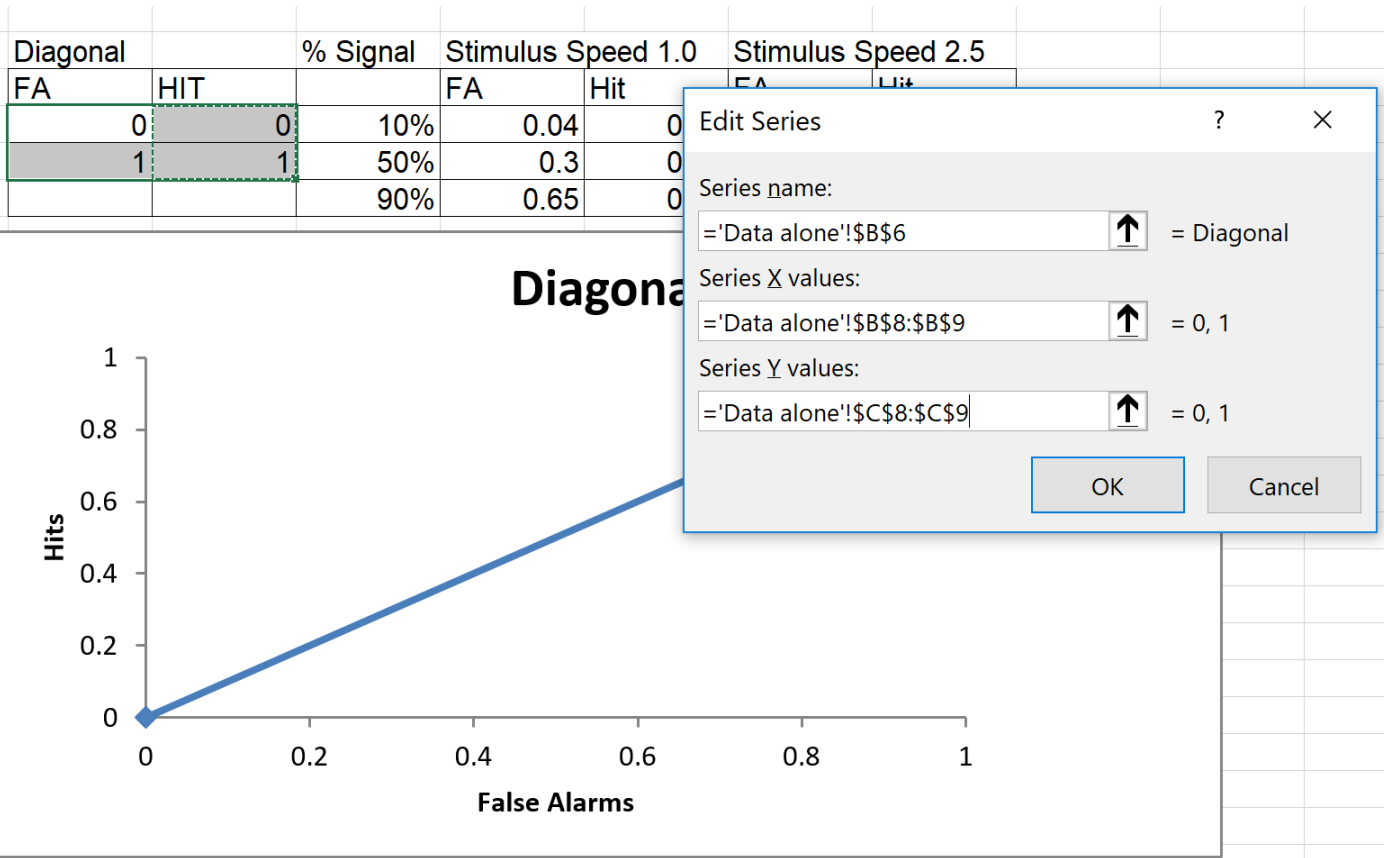
Diagonal		% Signal	Stimulus Speed 1.0		Stimulus Speed 2.5	
FA	HIT		FA	Hit	FA	Hit
0	0	10%	0.04	0.24	0.01	0.1
1	1	50%	0	0		
		90%	0.6			



Diagonal

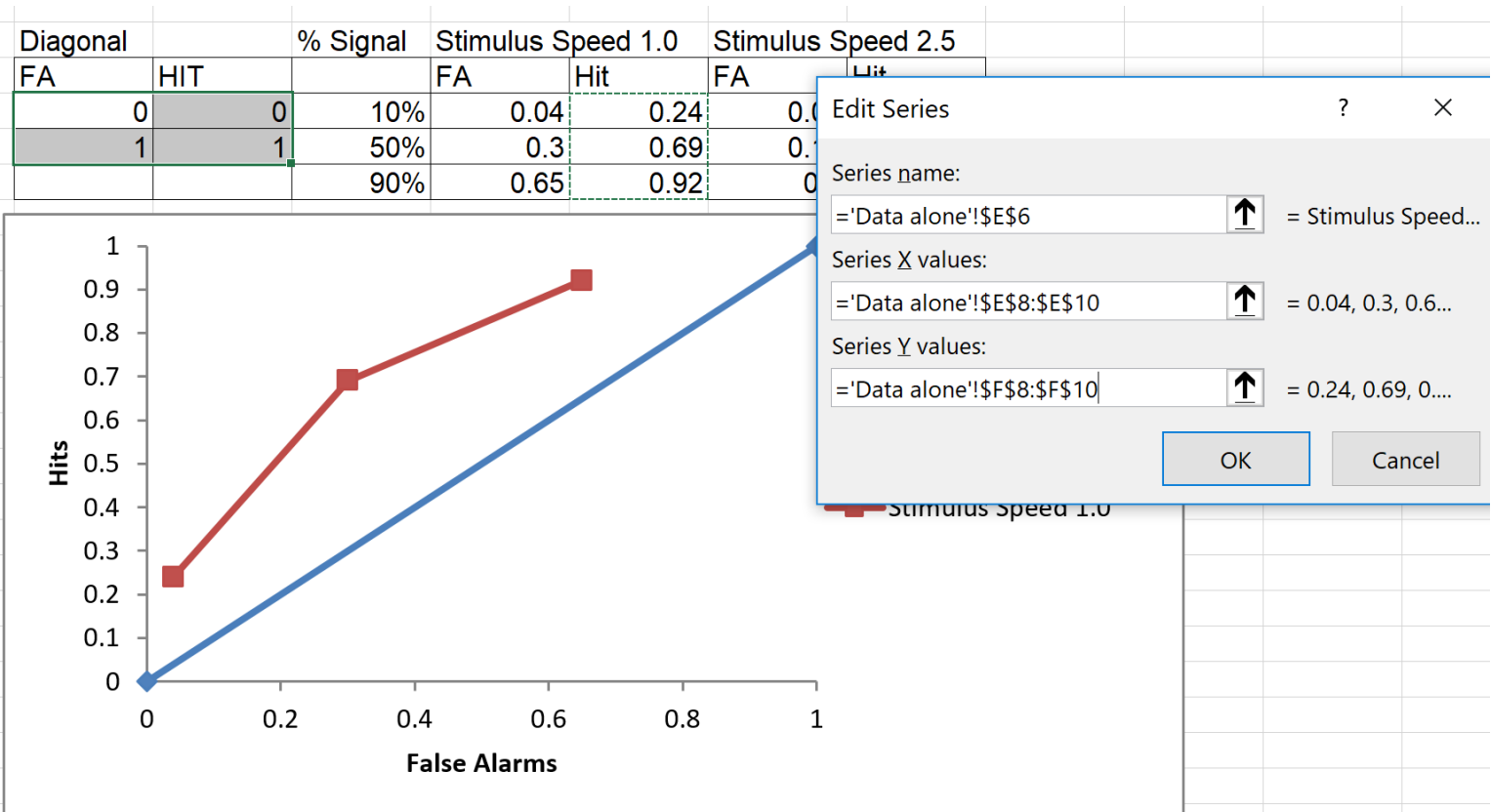
# This is what you have

After clicking "OK"

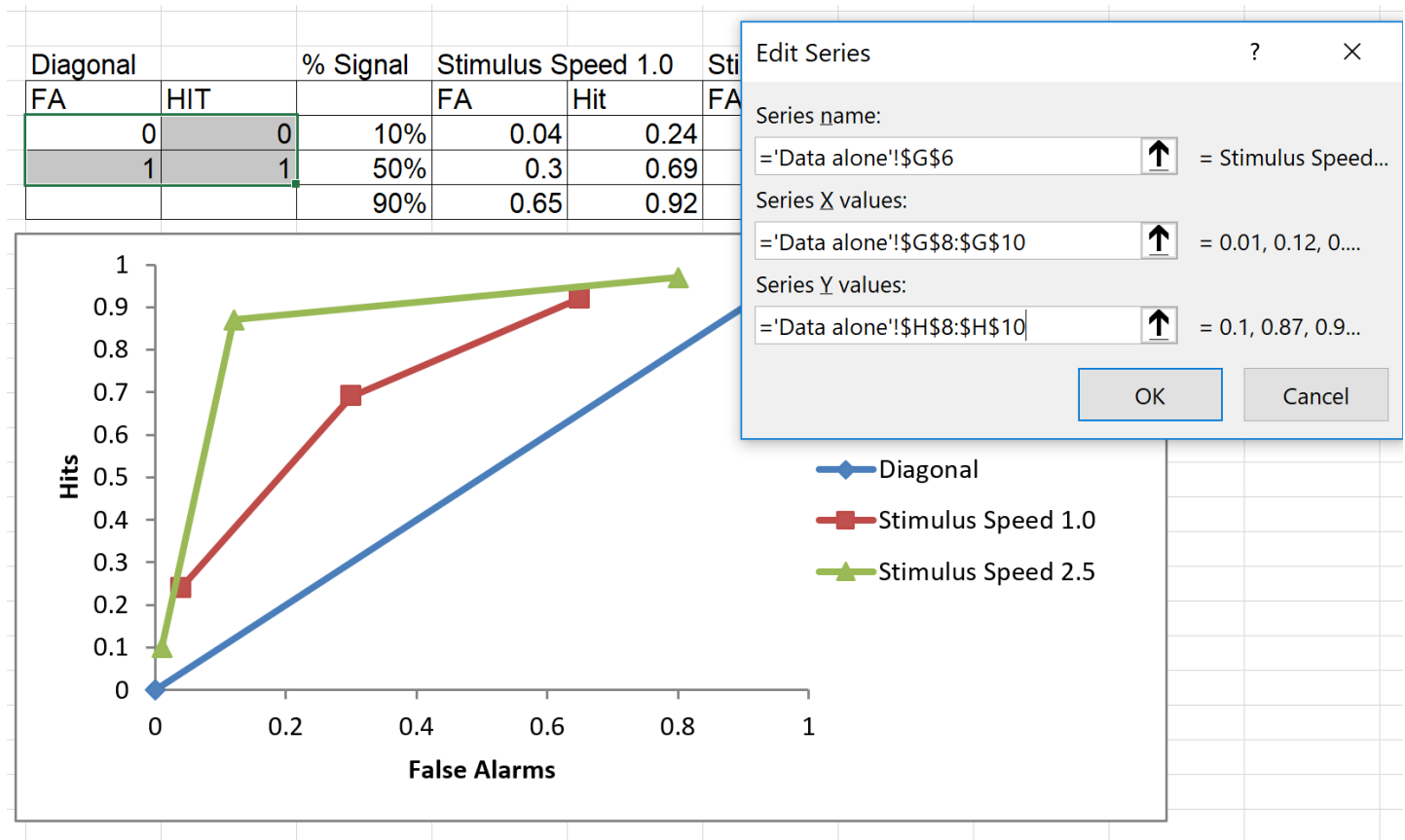


# Now add the slow line.

Click Add and repeat the steps to add your first ROC curve.



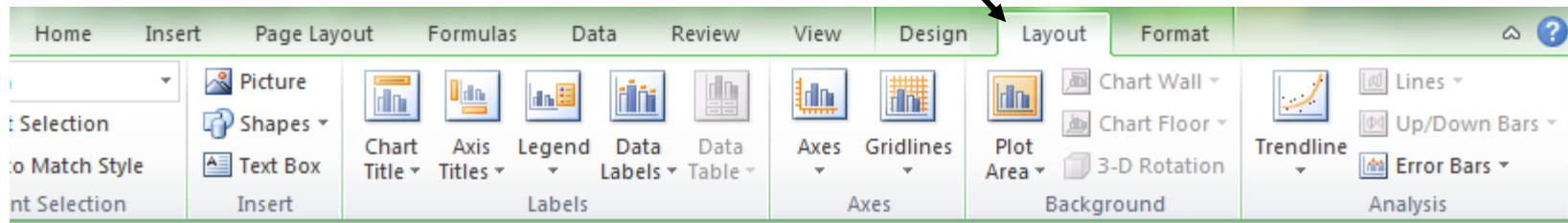
# Add your second ROC Curve



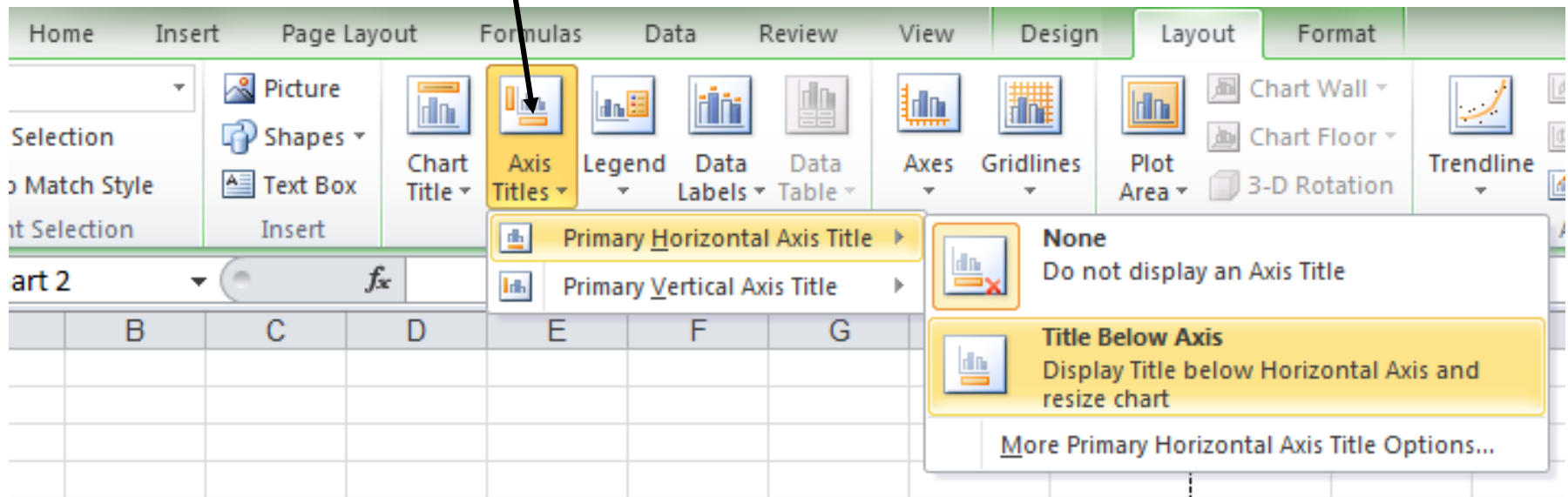
Click "OK" twice, next it is time to edit the graph to make it look right.

# Select the Layout Tab

This tab will allow you to format your chart.

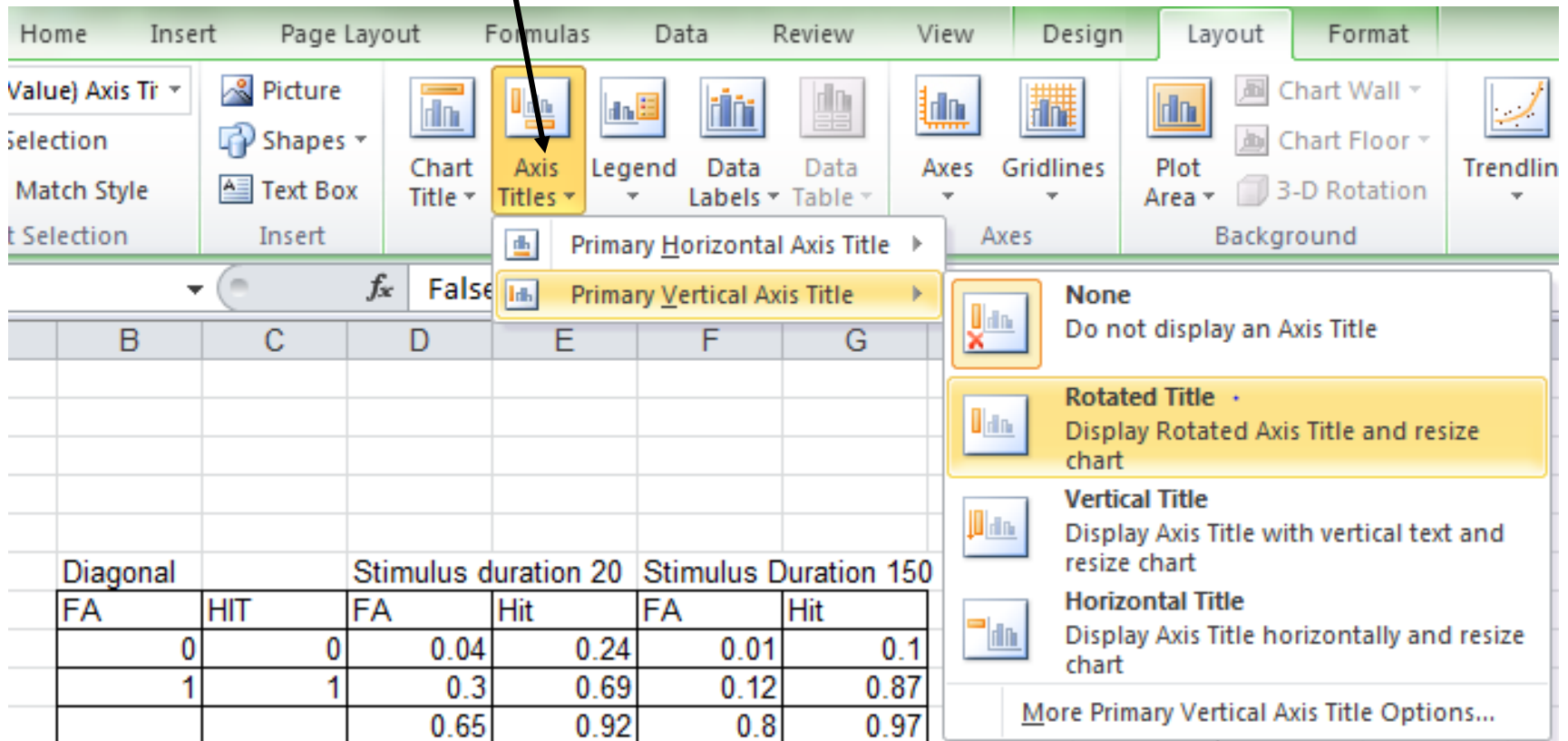


# Add X-Axis Label



After selecting this option, type "False Alarms" and hit return.

# Add Y-Axis Label



The screenshot shows the Microsoft Excel ribbon with the 'Format' tab selected. The 'Axis Titles' group is highlighted, and the 'Primary Vertical Axis Title' option is selected from the dropdown menu. The background shows a data table with columns for 'Diagonal', 'Stimulus duration 20', and 'Stimulus Duration 150', each with sub-columns for 'FA' and 'Hit'.

Diagonal		Stimulus duration 20		Stimulus Duration 150	
FA	HIT	FA	Hit	FA	Hit
0	0	0.04	0.24	0.01	0.1
1	1	0.3	0.69	0.12	0.87
		0.65	0.92	0.8	0.97

Primary Vertical Axis Title

- None  
Do not display an Axis Title
- Rotated Title**  
Display Rotated Axis Title and resize chart
- Vertical Title**  
Display Axis Title with vertical text and resize chart
- Horizontal Title**  
Display Axis Title horizontally and resize chart

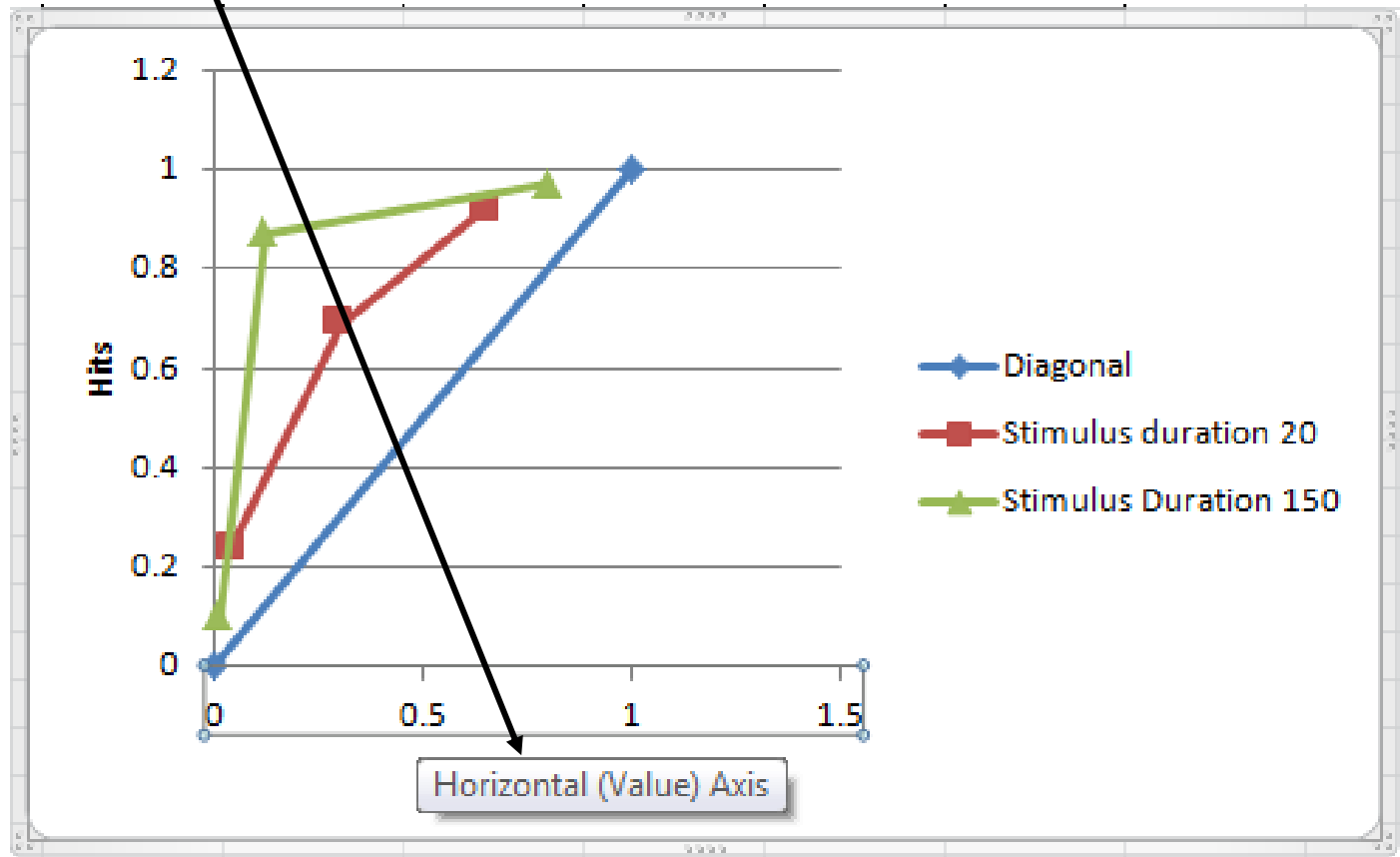
[More Primary Vertical Axis Title Options...](#)

After selecting this option, type "Hits" and hit return.

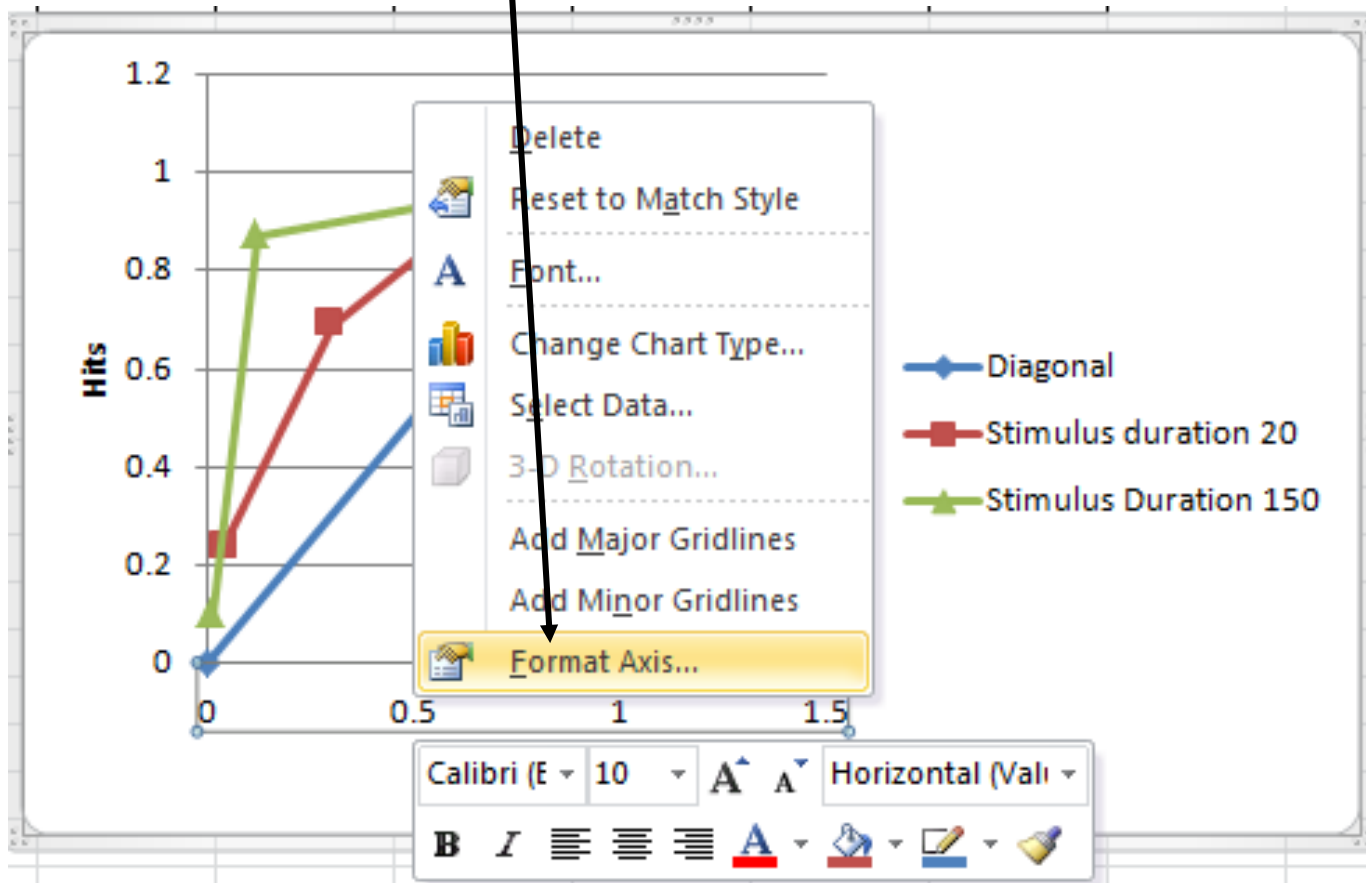


# Set Axis Range

Move mouse over X-Axis look for this Label to pop up. Then right click.



# Select Format Axis



# Set Range

Set minimum and maximum to fixed and set minimum value to 0 and maximum value to 1.0. Repeat for Y-axis.

Format Axis

Axis Options

Number

Fill

Line Color

Line Style

Shadow

Glow and Soft Edges

3-D Format

Alignment

Axis Options

Minimum:  Auto  Fixed 0.0

Maximum:  Auto  Fixed 1.0

Major unit:  Auto  Fixed 0.5

Minor unit:  Auto  Fixed 0.1

Values in reverse order

Logarithmic scale Base: 10

Display units: None

Show display units label on chart

Major tick mark type: Outside

Minor tick mark type: None

Axis labels: Next to Axis

Vertical axis crosses:

Automatic

Axis value: 0.0

Maximum axis value

Close

# Remove the Gridlines

The screenshot shows the Microsoft Excel ribbon with the 'Gridlines' menu open. The 'None' option is selected, which will remove the gridlines from the chart. The background shows a portion of an Excel spreadsheet with columns D through K and rows 1 through 3. A table is visible in the bottom left corner of the spreadsheet.

stimulus duration 20		Stimulus Duration 150	
Hit	FA	Hit	
0.04	0.24	0.01	0.1
0.3	0.69	0.12	0.87

# Final Graph

