

**Microsoft Excel makes it easy to calculate the Rise & Fall without making any errors**

Students lacking computer skills and can't the instruction should contact me.

	A	B	C	D	E	F	G	H	I	J
1	Station	Backsight	Inter mediate	Foresight	Fall(-) Rise(+)	Reduced Level	Remarks	Rise & Fall Records using Microsoft Excel		
2	1	A	1.325			100.000				
3	2	B		2.550	-1.225	98.775				
4	3	C		3.125	-0.575	98.200		Column A	Station numerical	
5	4	D		2.890	0.235	98.435		Column B	Station alphabetical	
6	5	E		2.050	0.840	99.275			only one of the above is used	
7	6	F		1.850	0.200	99.475				
8	7	G		1.350	0.500	99.975		Cell C23	Sum of Backsight	
9	8	H		1.970	-0.620	99.355		Cell E23	Sum of Foresight	
10	9	J		2.830	-0.860	98.495		Cell G23	Sum of Rise & Fall	
11	10	K	0.900		4.750	-1.920	96.575	Change Point		
12	11	L		1.280		-0.380	96.195		Cell D24	Backsight minus Foresight
13	12	M		2.090		-0.810	95.385			
14	13	N		1.840		0.250	95.635			
15	14	O		1.875		-0.035	95.600			
16	15	P	3.375		0.250	1.625	97.225	Change Point		
17	16	Q		2.760		0.615	97.840			
18	17	R		1.980		0.780	98.620			
19	18	S		2.560		-0.580	98.040			
20	19	T		3.220		-0.660	97.380			
21	20	U			0.595	2.625	100.005			
22	21	V	5.600		5.595	0.005				
23				0.005						
24	SHEET 1									

Remember first activate the cell in which the formula goes then type = and select the data cell and the oprerand (+, -, x or /)

	A	B	C	D	E	F	G	H	I	J
1	Station		Backsight	Inter mediate	Foresight	Fall(-) Rise(+)	Reduced Level	Remarks	Rise & Fall Records using Microsoft Excel	
2	1	A	1.325				100		<p>Record the data (Backsight, Intermediate sight &amp; Foresight) in the appropriate columns cells.</p> <p>1) Click on Cell F5 (make it active) and select the = sign. Now you can put the formula in the cell (Always use the = sign for formula input) Then click on cell C4 hit the minus button and click on D5 hit ► Enter (first formula is entered in F5 Value = -1.225 is shown</p> <p>2) Make Cell F6 active and select = then click on D5 minus D6 and ► Enter (Value = -0575)</p> <p>3) Copy the formula down to Row 12.</p> <p>4) Make Cell F13 active and select = (Change Point) click on D12 minus E13 ► Enter (Value = -1.92)</p> <p>5) Make Cell F14 active and select = (Change Point) then click on C13 minus D14 ► Enter (Value = -0.38)</p> <p>6) Make Cell F15 active and select = now click on D14 minus D15 ► Enter (Value = -0.81)</p> <p>7) copy the formula down to Row 17</p> <p>Complete the formula follow the above steps Remember that Change point have BS &amp; FS and require different inputs</p>	
3	2	B		2.55		=C2-D3	=G2+F3			
4	3	C		3.125		=D3-D4	=G3+F4			
5	4	D		2.89		=D4-D5	=G4+F5			
6	5	E		2.05		=D5-D6	=G5+F6			
7	6	F		1.85		=D6-D7	=G6+F7			
8	7	G		1.35		=D7-D8	=G7+F8			
9	8	H		1.97		=D8-D9	=G8+F9			
10	9	J		2.83		=D9-D10	=G9+F10			
11	10	K	0.9		4.75	=D10-E11	=G10+F11	Change Point		
12	11	L		1.28		=C11-D12	=G11+F12			
13	12	M		2.09		=D12-D13	=G12+F13			
14	13	N		1.84		=D13-D14	=G13+F14			
15	14	O		1.875		=D14-D15	=G14+F15			
16	15	P	3.375		0.25	=D15-E16	=G15+F16	Change Point		
17	16	Q		2.76		=C16-D17	=G16+F17			
18	17	R		1.98		=D17-D18	=G17+F18			
19	18	S		2.56		=D18-D19	=G18+F19			
20	19	T		3.22		=D19-D20	=G19+F20			
21	20	U			0.595	=D20-E21	=G20+F21			
22	21		=SUM(C2:C21)		=SUM(E2:E21)	=SUM(F3:F21)				
23				=C22-E22						
24	SHEET 2									