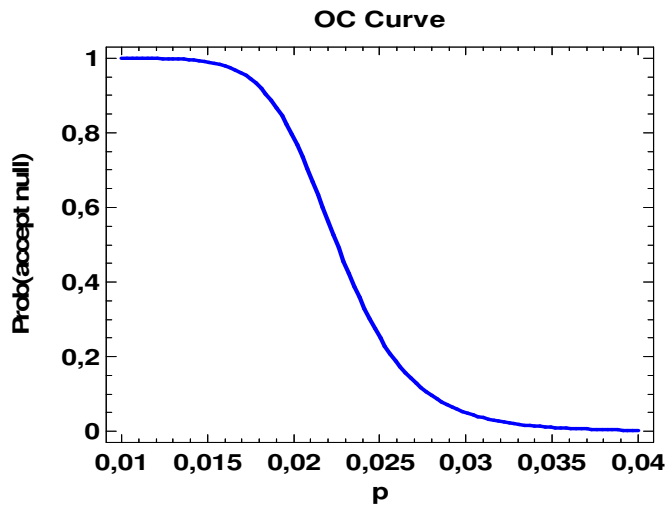


Aufgabe 1:

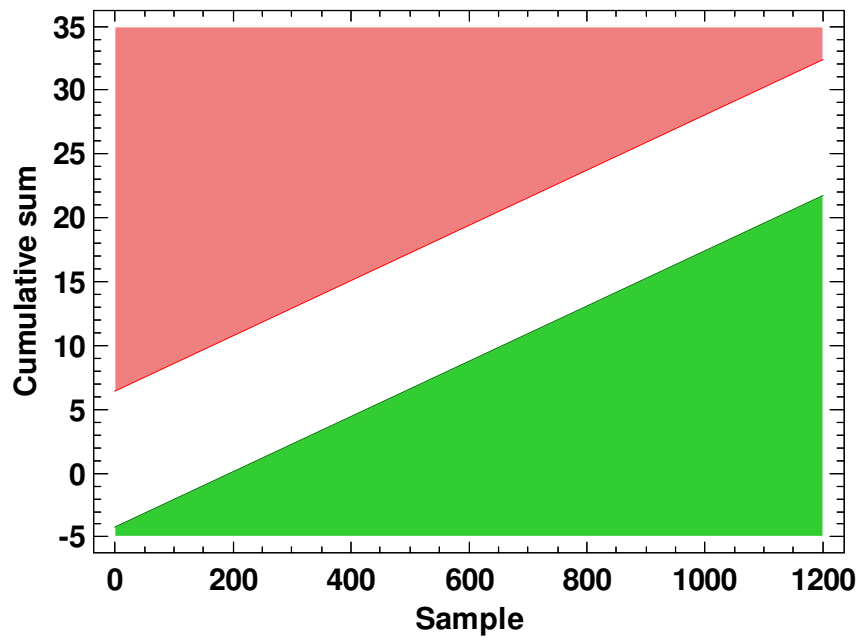
Sequential Sampling

Hypothesis Test

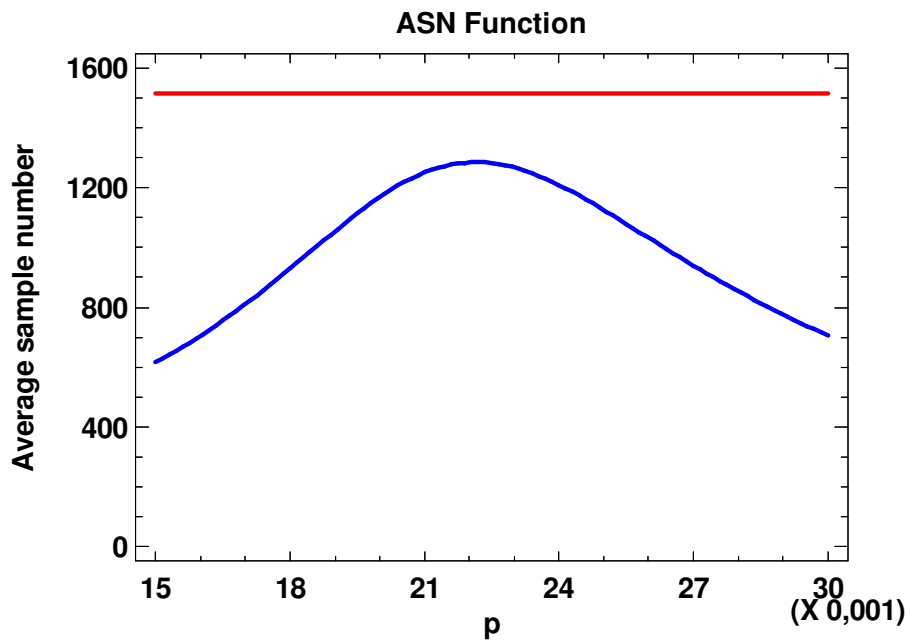
Null hypothesis	$p = 0,015$	alpha risk = 0,01
Alternative hypothesis	$p = 0,03$	beta risk = 0,05



a)



c)



Test Performance

	p	$Prob(\text{accept null})$	$Average\ sample\ number$
Null hyp.	0,015	0,9900	616,82
	0,0165	0,9707	756,29
	0,018	0,9240	930,66
	0,0195	0,8302	1114,79
	0,021	0,6815	1250,24
	0,0225	0,5028	1281,07
	0,024	0,3383	1207,99
	0,0255	0,2146	1078,84
	0,027	0,1325	939,46
	0,0285	0,0813	813,21
Alt. hyp.	0,03	0,0500	706,85

Sample size for fixed test $n = 1514$

d)

Lieferung 1 mit 1,5% Ausschuss

Sequential Sampling

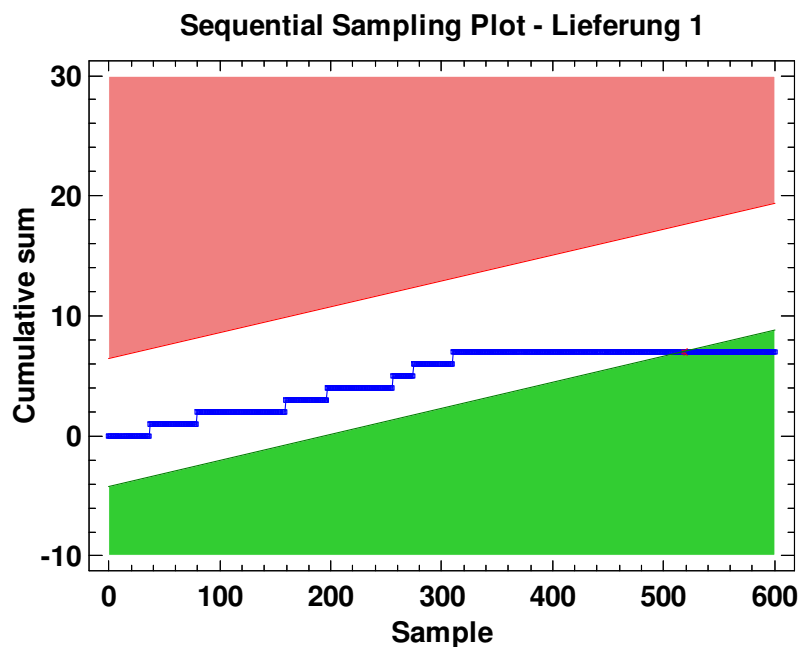
Data variable: Lieferung 1 ($p=0,015$)

Count	50000
Average	0,015
Median	0,0
Standard deviation	0,121554
Minimum	0,0
Maximum	1,0
Std. skewness	-1014,5
Std. kurtosis	2815,67

Hypothesis Test

Null hypothesis	$p = 0,015$	alpha risk = 0,01
Alternative hypothesis	$p = 0,03$	beta risk = 0,05

Decision: accept null hypothesis at sample 518



Lieferung 2 mit 3% Ausschuss

Sequential Sampling

Data variable: Lieferung 2 ($p=0,03$)

Count	50000
Average	0,03
Median	0,0
Standard deviation	0,170589
Minimum	0,0
Maximum	1,0
Std. skewness	-700,527
Std. kurtosis	1294,78

Hypothesis Test

Null hypothesis	$p = 0,015$	alpha risk = 0,01
Alternative hypothesis	$p = 0,03$	beta risk = 0,05

Decision: reject null hypothesis at sample 1261

