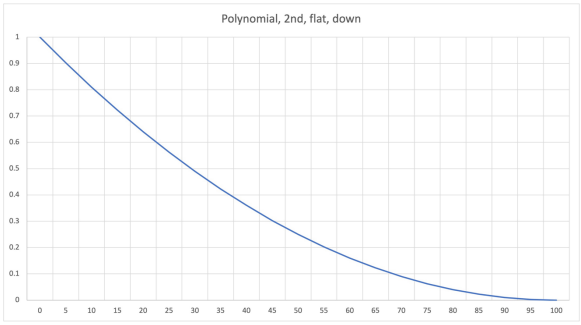
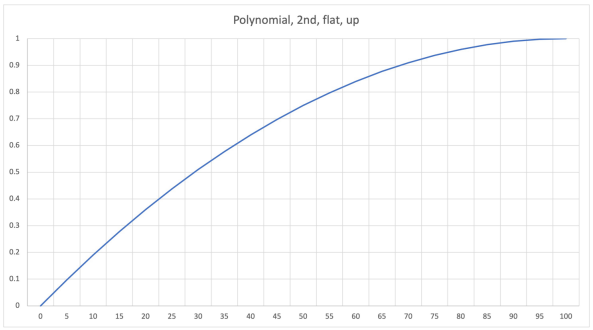
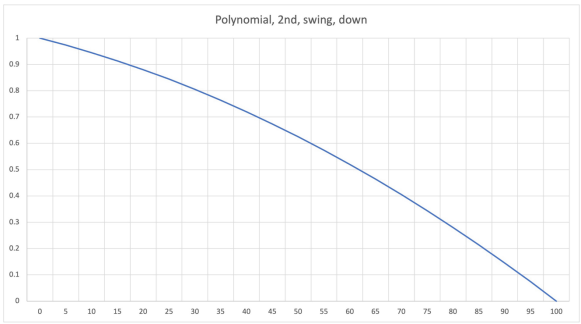
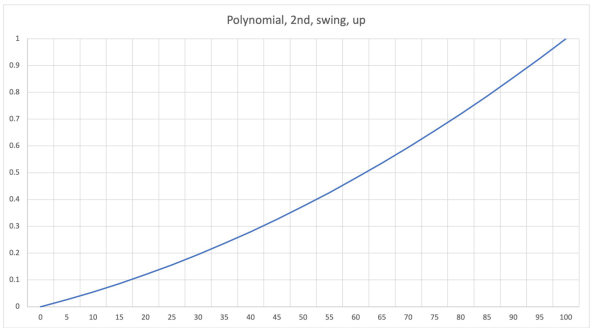
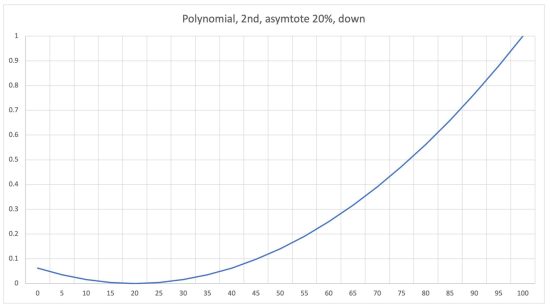
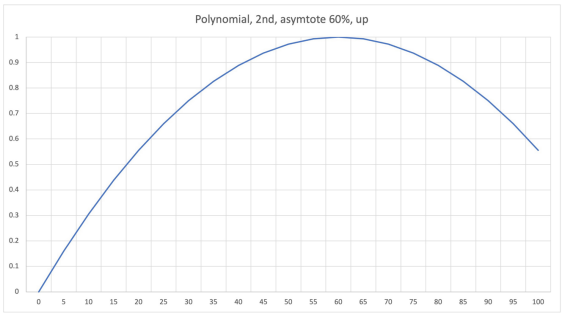
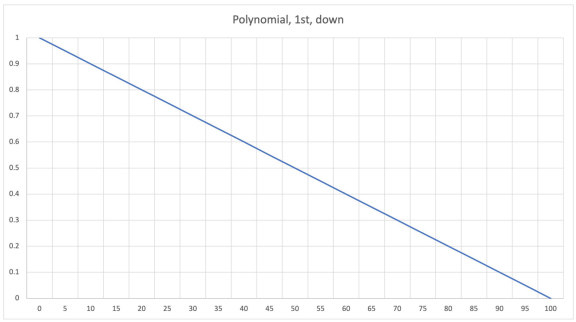
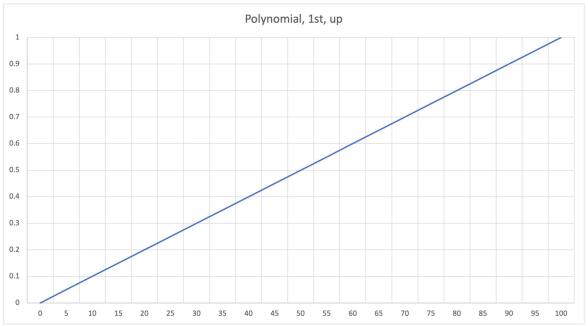
POLYNOMIAL

$$OUTPUT = G2 * GainInput^2 + G1 * GainInput + G0$$

GainModel	Order	GainShape	Direction	Asymtote	Slope	OUTPUT
0 Polynomial	2	0 Flat	0 Down			
0 Polynomial	2	0 Flat	1 Up			
0 Polynomial	2	1 Swing	0 Down			
0 Polynomial	2	1 Swing	1 Up			

GainModel	Order	GainShape	Direction	Asymtote	Slope	OUTPUT
0 Polynomial	2	2 Asymtote	0 Down	20%		
0 Polynomial	2	2 Asymtote	1 Up	60%		
0 Polynomial	1		0 Down			
0 Polynomial	1		1 Up			

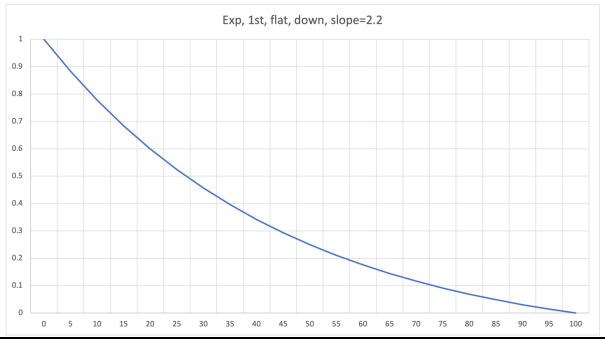
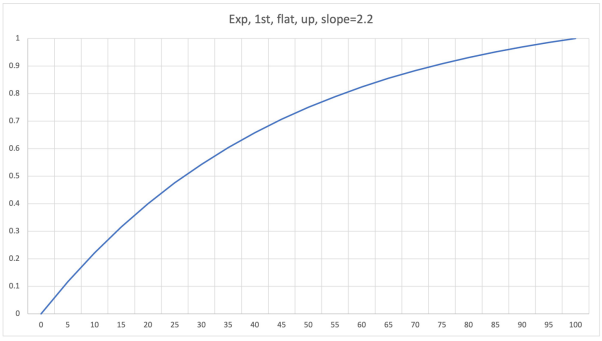
EXPONENTIAL

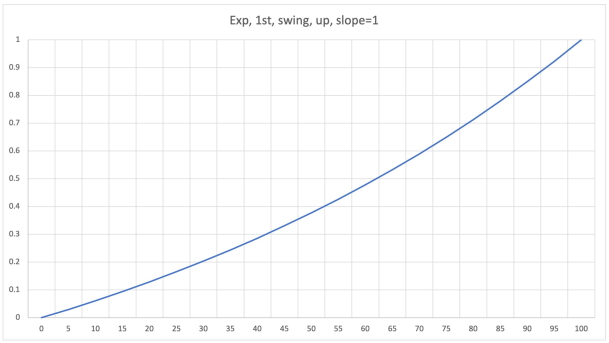
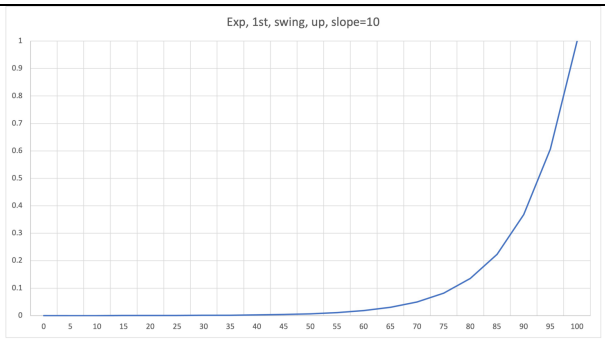
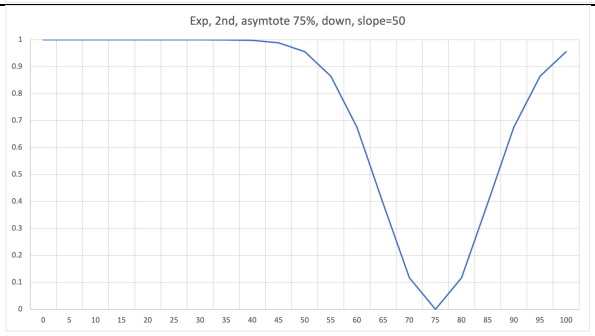
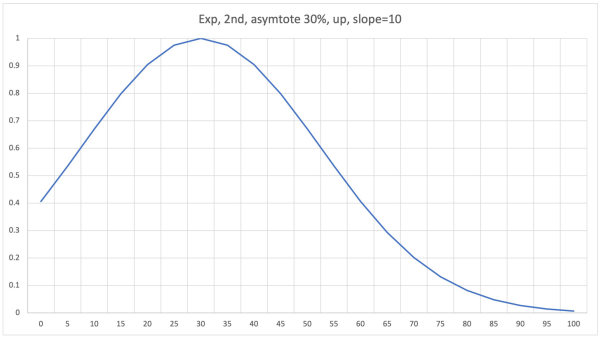
$$ExpNumerator = = exp(Slope * SlopeSign * (GainInput - GainAsymtote)^{Order}) - 1$$

$$ExpDenominator = \exp(Slope * SlopeSign) - 1$$

$$ExpFraction = \frac{ExpNumerator}{ExpDenominator}$$

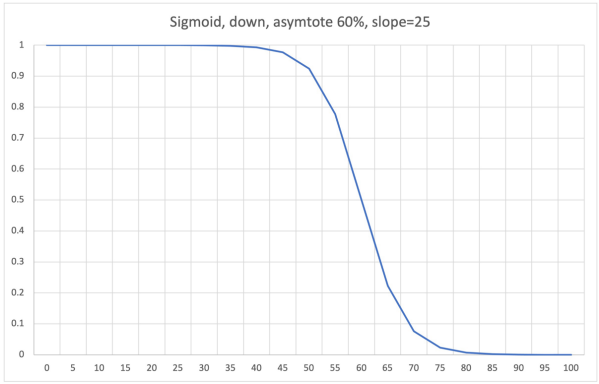
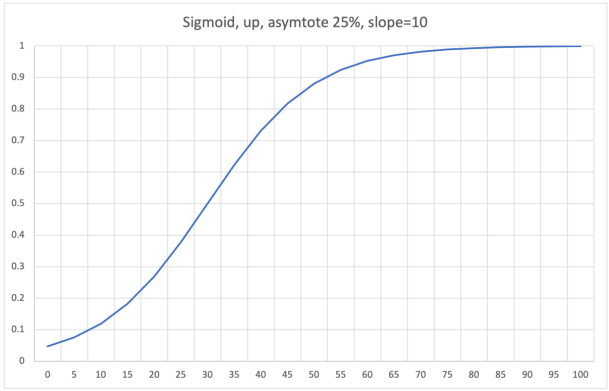
$$OUTPUT = GainDirection - (2 * GainDirection - 1) * ExpFraction$$

GainModel	Order	GainShape	Direction	Asymtote	Slope	OUTPUT
1 Exponential	1	0 Flat	0 Down		2.2	
1 Exponential	1	0 Flat	1 Up		2.2	
1 Exponential	1	1 Swing	0 Down		1	

GainModel	Order	GainShape	Direction	Asymtote	Slope	OUTPUT
1 Exponential	1	1 Swing	1 Up		1	
1 Exponential	1	1 Swing	1 Up		10	
1 Exponential	2		0 Down	75%	50	
1 Exponential	2		1 Up	25%	10	

SIGMOID

$$OUTPUT = 1 - \left[Direction - \frac{2 * Direction - 1}{1 + e^{-1 * Slope * (GainInput - GainAsymtote)}}\right]$$

GainModel	Order	GainShape	Direction	Asymtote	Slope	OUTPUT
2 Sigmoid			0 Down	60%	25	
2 Sigmoid			1 Up	25%	10