MSE-Optimal Scalar Quantizers

densities and quantizers are symmetric about the origin, and densities have variance 1
data taken from Jayant and Noll, p. 134,135

	rate = 1		rate = 2		rate = 3		rate = 4	
	thresh	level	thresh	level	thresh	level	thresh	level
uniform	0.000		0.000		0.000		0.000	
		0.8660		0.433		0.217		0.109
			0.866		0.433		0.217	
				1.299		0.650		0.326
					0.866		0.433	
						1.083		0.542
					1.299		0.650	
						1.516		0.759
							0.866	
								0.975
							1.083	
								1.192
							1.299	
								1.408
							1.516	
								1.624
MSE =	0.25		0.0625		0.0156		0.00391	
Gaussian	0.000		0.000		0.000		0.000	
		0.798		0.453		0.245		0.128
			0.982		0.501		0.258	
				1.510		0.756		0.388
					1.050		0.522	
						1.344		0.657
					1.748		0.800	
						2.152		0.942
							1.099	
								1.256
							1.437	
								1.618
							1.844	
								2.069
							2.401	
								2.733
MSE =	0.363		0.117		0.0345		0.00951	
Laplacian	0.000		0.000		0.000		0.000	
		0.707		0.420		0.233		0.124
			1.127		0.533		0.264	
				1.834		0.833		0.405
					1.253		0.567	
						1.673		0.729
					2.380		0.920	
						3.087		1.111
							1.345	
								1.578
							1.878	
								2.178
							2.597	
								3.017
							3.725	
								4.432
MSE =	0.500		0.176		0.0544		0.0154	