

$$18g) M(s_0 s_1 s_2 \dots) = (s_0 s_{10} s_{100} s_{1000} \dots).$$

This exercise parallels the previous one, except this time we must choose δ to be very, very small. Specifically, we may choose $\delta = 1/2^{10^n}$ so that s and t agree on the first $10^n + 1$ entries.