

$N =$	$P_{10} = .45$		$P_{11} = .16$		$P_{12} = .16$		$P_{13} = .16$		$P_{14} = .16$		$P_{15} = .16$		$P_{16} = .16$		$P_{17} = .16$		$P_{18} = .16$		$P_{19} = .16$		$P_{20} = .16$		$P_{21} = .16$		$P_{22} = .16$		$P_{23} = .16$		$P_{24} = .16$		$P_{25} = .16$		$P_{26} = .16$		$P_{27} = .16$		$P_{28} = .16$		$P_{29} = .16$		$P_{30} = .16$		$P_{31} = .16$		$P_{32} = .16$		$P_{33} = .16$		$P_{34} = .16$		$P_{35} = .16$		$P_{36} = .16$		$P_{37} = .16$		$P_{38} = .16$		$P_{39} = .16$		$P_{40} = .16$		$P_{41} = .16$		$P_{42} = .16$		$P_{43} = .16$		$P_{44} = .16$		$P_{45} = .16$		$P_{46} = .16$		$P_{47} = .16$		$P_{48} = .16$		$P_{49} = .16$		$P_{50} = .16$		$P_{51} = .16$		$P_{52} = .16$		$P_{53} = .16$		$P_{54} = .16$		$P_{55} = .16$		$P_{56} = .16$		$P_{57} = .16$		$P_{58} = .16$		$P_{59} = .16$		$P_{60} = .16$		$P_{61} = .16$		$P_{62} = .16$		$P_{63} = .16$		$P_{64} = .16$		$P_{65} = .16$		$P_{66} = .16$		$P_{67} = .16$		$P_{68} = .16$		$P_{69} = .16$		$P_{70} = .16$		$P_{71} = .16$		$P_{72} = .16$		$P_{73} = .16$		$P_{74} = .16$		$P_{75} = .16$		$P_{76} = .16$		$P_{77} = .16$		$P_{78} = .16$		$P_{79} = .16$		$P_{80} = .16$		$P_{81} = .16$		$P_{82} = .16$		$P_{83} = .16$		$P_{84} = .16$		$P_{85} = .16$		$P_{86} = .16$		$P_{87} = .16$		$P_{88} = .16$		$P_{89} = .16$		$P_{90} = .16$		$P_{91} = .16$		$P_{92} = .16$		$P_{93} = .16$		$P_{94} = .16$		$P_{95} = .16$		$P_{96} = .16$		$P_{97} = .16$		$P_{98} = .16$		$P_{99} = .16$		$P_{100} = .16$		$P_{101} = .16$		$P_{102} = .16$		$P_{103} = .16$		$P_{104} = .16$		$P_{105} = .16$		$P_{106} = .16$		$P_{107} = .16$		$P_{108} = .16$		$P_{109} = .16$		$P_{110} = .16$		$P_{111} = .16$		$P_{112} = .16$		$P_{113} = .16$		$P_{114} = .16$		$P_{115} = .16$		$P_{116} = .16$		$P_{117} = .16$		$P_{118} = .16$		$P_{119} = .16$		$P_{120} = .16$		$P_{121} = .16$		$P_{122} = .16$		$P_{123} = .16$		$P_{124} = .16$
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$$t = N\mathbf{1}$$
[illegible]

Finally, we see that $t_0 = \boxed{\frac{213}{29} \approx 7.345}$