



Page 2 of 4

$N =$	$P_{0,0} = \frac{45}{16}$	$P_{1,0} = \frac{15}{16}$	$P_{2,0} = \frac{15}{16}$	$P_{3,0} = \frac{15}{16}$	$P_{4,0} = \frac{15}{16}$	$P_{5,0} = \frac{15}{16}$	$P_{6,0} = \frac{15}{16}$	$P_{7,0} = \frac{7}{2}$	$P_{8,0} = \frac{5}{16}$	$P_{9,0} = \frac{7}{2}$	$P_{10,0} = \frac{5}{16}$	$P_{11,0} = \frac{7}{2}$	$P_{12,0} = \frac{5}{16}$	$P_{13,0} = \frac{7}{2}$	$P_{14,0} = \frac{5}{16}$	$P_{15,0} = \frac{7}{2}$	$P_{16,0} = \frac{5}{16}$	$P_{17,0} = \frac{7}{2}$	$P_{18,0} = \frac{5}{16}$
	$P_{1,1} = \frac{10771}{16384}$	$P_{2,1} = \frac{62895}{16384}$	$P_{3,1} = \frac{31447}{16384}$	$P_{4,1} = \frac{15723}{16384}$	$P_{5,1} = \frac{7861}{16384}$	$P_{6,1} = \frac{3931}{16384}$	$P_{7,1} = \frac{1965}{16384}$	$P_{8,1} = \frac{982}{16384}$	$P_{9,1} = \frac{491}{16384}$	$P_{10,1} = \frac{245}{16384}$	$P_{11,1} = \frac{122}{16384}$	$P_{12,1} = \frac{61}{16384}$	$P_{13,1} = \frac{30}{16384}$	$P_{14,1} = \frac{15}{16384}$	$P_{15,1} = \frac{7}{16384}$	$P_{16,1} = \frac{3}{16384}$	$P_{17,1} = \frac{1}{16384}$	$P_{18,1} = \frac{1}{16384}$	
	$P_{1,2} = \frac{318585}{16384}$	$P_{2,2} = \frac{159292}{16384}$	$P_{3,2} = \frac{79646}{16384}$	$P_{4,2} = \frac{39823}{16384}$	$P_{5,2} = \frac{19911}{16384}$	$P_{6,2} = \frac{9955}{16384}$	$P_{7,2} = \frac{4977}{16384}$	$P_{8,2} = \frac{2488}{16384}$	$P_{9,2} = \frac{1244}{16384}$	$P_{10,2} = \frac{622}{16384}$	$P_{11,2} = \frac{311}{16384}$	$P_{12,2} = \frac{155}{16384}$	$P_{13,2} = \frac{77}{16384}$	$P_{14,2} = \frac{39}{16384}$	$P_{15,2} = \frac{19}{16384}$	$P_{16,2} = \frac{9}{16384}$	$P_{17,2} = \frac{4}{16384}$	$P_{18,2} = \frac{2}{16384}$	
	$P_{1,3} = \frac{89799}{16384}$	$P_{2,3} = \frac{44899}{16384}$	$P_{3,3} = \frac{22449}{16384}$	$P_{4,3} = \frac{11224}{16384}$	$P_{5,3} = \frac{5612}{16384}$	$P_{6,3} = \frac{2806}{16384}$	$P_{7,3} = \frac{1403}{16384}$	$P_{8,3} = \frac{701}{16384}$	$P_{9,3} = \frac{350}{16384}$	$P_{10,3} = \frac{175}{16384}$	$P_{11,3} = \frac{87}{16384}$	$P_{12,3} = \frac{43}{16384}$	$P_{13,3} = \frac{21}{16384}$	$P_{14,3} = \frac{10}{16384}$	$P_{15,3} = \frac{5}{16384}$	$P_{16,3} = \frac{2}{16384}$	$P_{17,3} = \frac{1}{16384}$	$P_{18,3} = \frac{1}{16384}$	
	$P_{1,4} = \frac{25479}{16384}$	$P_{2,4} = \frac{12739}{16384}$	$P_{3,4} = \frac{6369}{16384}$	$P_{4,4} = \frac{3184}{16384}$	$P_{5,4} = \frac{1592}{16384}$	$P_{6,4} = \frac{796}{16384}$	$P_{7,4} = \frac{398}{16384}$	$P_{8,4} = \frac{199}{16384}$	$P_{9,4} = \frac{99}{16384}$	$P_{10,4} = \frac{49}{16384}$	$P_{11,4} = \frac{24}{16384}$	$P_{12,4} = \frac{12}{16384}$	$P_{13,4} = \frac{6}{16384}$	$P_{14,4} = \frac{3}{16384}$	$P_{15,4} = \frac{1}{16384}$	$P_{16,4} = \frac{1}{16384}$	$P_{17,4} = \frac{1}{16384}$	$P_{18,4} = \frac{1}{16384}$	
	$P_{1,5} = \frac{7187}{16384}$	$P_{2,5} = \frac{3593}{16384}$	$P_{3,5} = \frac{1796}{16384}$	$P_{4,5} = \frac{898}{16384}$	$P_{5,5} = \frac{449}{16384}$	$P_{6,5} = \frac{224}{16384}$	$P_{7,5} = \frac{112}{16384}$	$P_{8,5} = \frac{56}{16384}$	$P_{9,5} = \frac{28}{16384}$	$P_{10,5} = \frac{14}{16384}$	$P_{11,5} = \frac{7}{16384}$	$P_{12,5} = \frac{3}{16384}$	$P_{13,5} = \frac{1}{16384}$	$P_{14,5} = \frac{1}{16384}$	$P_{15,5} = \frac{1}{16384}$	$P_{16,5} = \frac{1}{16384}$	$P_{17,5} = \frac{1}{16384}$	$P_{18,5} = \frac{1}{16384}$	
	$P_{1,6} = \frac{2051}{16384}$	$P_{2,6} = \frac{1025}{16384}$	$P_{3,6} = \frac{512}{16384}$	$P_{4,6} = \frac{256}{16384}$	$P_{5,6} = \frac{128}{16384}$	$P_{6,6} = \frac{64}{16384}$	$P_{7,6} = \frac{32}{16384}$	$P_{8,6} = \frac{16}{16384}$	$P_{9,6} = \frac{8}{16384}$	$P_{10,6} = \frac{4}{16384}$	$P_{11,6} = \frac{2}{16384}$	$P_{12,6} = \frac{1}{16384}$	$P_{13,6} = \frac{1}{16384}$	$P_{14,6} = \frac{1}{16384}$	$P_{15,6} = \frac{1}{16384}$	$P_{16,6} = \frac{1}{16384}$	$P_{17,6} = \frac{1}{16384}$	$P_{18,6} = \frac{1}{16384}$	
	$P_{1,7} = \frac{589}{16384}$	$P_{2,7} = \frac{294}{16384}$	$P_{3,7} = \frac{147}{16384}$	$P_{4,7} = \frac{73}{16384}$	$P_{5,7} = \frac{37}{16384}$	$P_{6,7} = \frac{18}{16384}$	$P_{7,7} = \frac{9}{16384}$	$P_{8,7} = \frac{4}{16384}$	$P_{9,7} = \frac{2}{16384}$	$P_{10,7} = \frac{1}{16384}$	$P_{11,7} = \frac{1}{16384}$	$P_{12,7} = \frac{1}{16384}$	$P_{13,7} = \frac{1}{16384}$	$P_{14,7} = \frac{1}{16384}$	$P_{15,7} = \frac{1}{16384}$	$P_{16,7} = \frac{1}{16384}$	$P_{17,7} = \frac{1}{16384}$	$P_{18,7} = \frac{1}{16384}$	
	$P_{1,8} = \frac{169}{16384}$	$P_{2,8} = \frac{84}{16384}$	$P_{3,8} = \frac{42}{16384}$	$P_{4,8} = \frac{21}{16384}$															

$$t = N\mathbf{1}$$
[illegible]

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