

error controlled by significant digits

signifDigits	piHat	error
1	3	-0.1416
2	3.1	-0.04159
3	3.14	-0.001593
4	3.142	0.0004073
5	3.1416	7.346e-06
6	3.14159	-2.654e-06
7	3.141593	3.464e-07
8	3.1415927	4.641e-08
9	3.14159265	-3.59e-09
10	3.141592654	4.102e-10
11	3.1415926536	1.021e-11
12	3.14159265359	2.069e-13
13	3.14159265359	2.069e-13
14	3.1415926535898	7.105e-15
15	3.14159265358979	-3.109e-15
16	3.14159265358979	0

Asymptotic model to predict the maximum error on the
estimate of pi, given the number of significant digits
 $(3.288) \cdot (0.09268298)^{\text{significantDigits}}$

significant digits