

3. A MINITAB session is used to generate random integers between 0 and 9 inclusive, and the following results are obtained. Use a 0.05 significance level to test the claim that the MINITAB generated digits are uniformly distributed.

Digit	0	1	2	3	4	5	6	7	8	9
Frequency	32	29	37	21	41	24	33	32	25	26

4. Let x be a random variable that represents the average daily temperature (degrees Fahrenheit) in January at the town of Hana, Maui (Hawaii). The x variable has a mean μ approximately 68 °F and a standard deviation σ approximately 4 °F. A 20-year study (620 January days) gave the entries in the following table.

Region Under Normal Curve	x °F	Expected % from Normal Curve	Observed Number of Days in 20 years.		
$\mu-3\sigma < x < \mu-2\sigma$		2.15%	14		
$\mu-2\sigma < x < \mu-\sigma$		13.6%	86		
$\mu-\sigma < x < \mu$		34.1%	207		
$\mu < x < \mu+\sigma$		34.1%	215		
$\mu+\sigma < x < \mu+2\sigma$		13.6%	83		
$\mu+2\sigma < x < \mu+3\sigma$		2.15%	15		

- Remember that $\mu=68$ and $\sigma=4$, Complete the second column, and explain the meaning of first 3 columns.
- Use a 1% significance level to test the claim that the average daily January temperature follows a normal distribution with $\mu=68$ and $\sigma=4$.