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Theorem: An integer is a multiple of nine if and only if the sum of its digits is a multiple of nine.

Proof: Express the integer in terms of its digits: $d_0 + 10d_1 + 100d_2 + \dots + 10^n d_n$. This may be grouped into the sum of its digits $d_0 + d_1 + \dots + d_n$ plus the sum $(10 - 1)d_1 + (100 - 1)d_2 + \dots + (10^n - 1)d_n$. Since each $10^i - 1$ is divisible by nine...

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L 5672	D 9931	Y 2960	T 5553	H 4734	H 7496	W 9753	I 6065
M 1373	K 5574	E 3510	E 4324	C 1676	R 3564	B 9082	X 9875
C 6562	M 1434	E 1863	K 5192	J 4038	S 2277	R 9961	N 9470
V 8162	N 5627	U 6048	A 8878	E 5339	L 4617	B 4477	D 5388
T 3862	A 8296	O 3844	T 4473	F 2646	O 7677	M 7953	H 4650
G 7908	L 4126	H 2680	N 5776	M 6775	L 9387	M 5836	F 4936
E 2351	T 3508	L 7011	B 1526	C 4983	O 1332	G 4684	U 3659
H 4685	C 6577	J 9593	W 729	S 2043	D 7042	G 9267	U 3137
