Activity 1. Table of times for Floyd

n (*100)	t floyd (ms)
2	6.059
2^2	37.16
2^3	255.62
2^4	1705.7
2^5	13808.0
2^6	111212.0

If we double the size, the time multiplies by $2^3 = 8$ (as the complexity of Floyd is $O(n^3)$).

When n increases from 2 to 2^2, the time increases from about 6.06 ms to 37.16 ms (≈6.14× increase, close to 8).

Similarly, from 2^2 to 2^3, time goes from 37.16 ms to 255.62 ms (≈6.88× increase).

Further increases follow this pattern; for example, from 2^5 to 2^6 the time increases from 13808.0 ms to 111212.0 ms (≈8.05× increase).

These experimental results closely match the expected cubic growth pattern, confirming that the algorithm's running time scales as $O(n^3)$. Minor deviations from the ideal factor of 8 can be attributed to system overhead, caching, and randomness.