

# Caesar Cipher III Exploration Questions

You are under pressure to break your enemy's code. You know that the letters have been encoded as numbers using:

A	B	C	D	...	Z
0	1	2	3	...	25

and that the numbers were then altered using

$$\text{New} = (\text{A} * \text{old} + \text{B}) \text{ mod } 26.$$

You have a message coded by the enemy coding machine. Your secret network of spies has found out that the message is part of a nursery rhyme. Your job is to look at the coded text and try to guess what numbers the enemy is using for A and B. Good luck!

Think carefully about what guesses to make for A and B. Look at the coded phrase and think about patterns. There is scratch space below for you to record your ideas. The students who guess the A and B correctly in the shortest amount of time win!

Scratch Space: