

Secret Code

The letter A is coded into the letter F.

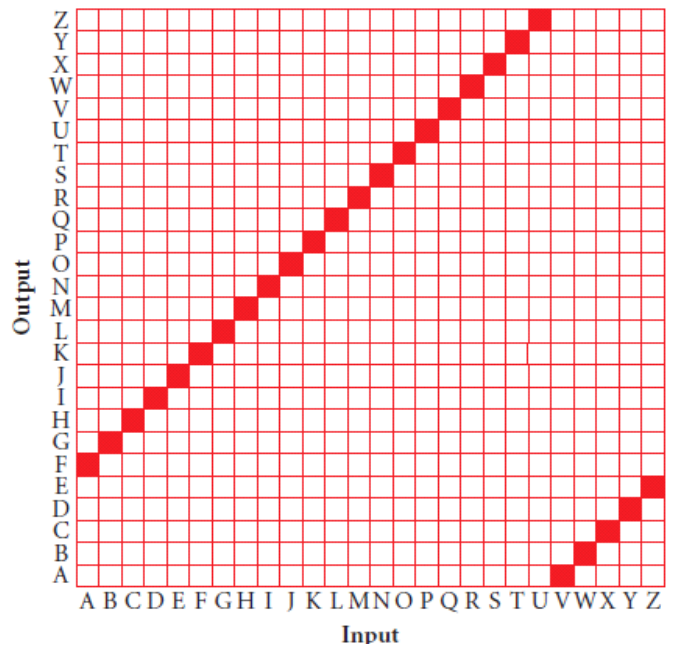
The letter B is coded into the letter G.

The letter U is coded into the letter Z.

This is an example of a **letter-shift code**.

How would you use the code to write a message?

Use the coding grid to write a two-word or three-word message.



Original input	A	B	C	D	E	F	G	H	I	J	K	L	M
Coded output	F	G	H	I	J	K	L	M	N	O	P	Q	R
Original input	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Coded output	S	T	U	V	W	X	Y	Z	A	B	C	D	E

Exchange your coded message with a partner. Use this grid to decode each other's messages.

Create a new code by writing a rule that shifts letters a certain specified number of places. Put the code on a grid like the one shown on the last step. Do not let your partner see the grid.

Original input	A	B	C	D	E	F	G	H	I	J	K	L	M
Coded output													
Original input	N	O	P	Q	R	S	T	U	V	R	X	Y	Z
Coded output													

Use your new grid to code the same message you wrote in the previous step.

Exchange your newly coded message. Use it, along with the first message, to try to figure out each other's new code.

Compare your grid to your classmates' new grid. In what ways are the grids the same? How are they different? For one grid, how many coded outputs are possible for one input letter? How many ways are there to decode any one letter in a coded message?