Baconian Cipher

A baconian cipher is a cipher system which uses groups of five symbols (either A or B) that code to individual letters. The table below is used to decrypt messages.

AAAAA	A	**AABBA**	G	**ABBAA**	N	**BAABA**	T
AAAAB	B	**AABBB**	H	**ABBAB**	O	**BAABB**	U/V
AAABA	C	**ABAAA**	I/J	**ABBBA**	P	**BABAA**	W
AAABB	D	**ABAAB**	K	**ABBBB**	Q	**BABAB**	X
AABAA	E	**ABABA**	L	**BAAAA**	R	**BABBA**	Y
AABAB	F	**ABABB**	M	**BAAAB**	S	**BABBB**	Z

Because this cipher takes a bit longer to solve, we will only work on decoding.

Use the table above to decrypt the following.

1. **AAAAB BAABB AABBA BAAAB AAAAB BAABB ABBAA ABBAA BABBA AAAAA ABBAA AAABB AAABB AAAAA AABAB AABAB BABBA AAABB BAABB AAABA ABAAB**

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2. **ABABB AAABA AAABB ABBAB ABBAA AAAAA ABABA AAABB BAAAB ABAAA ABABB ABABA ABBAB BAABB ABAAA ABBAA ABAAA BAABA**

For the next question, use A=0 and B=1

3. **01000 10010 00000 01010 10100 00000 10110 10001 10001 00100 00100 01011 10001 01000 01011 01110 01101 10001 10001 01000 00001 01010 00100 10011 01100 10010 01000 01010 01000 10010 10001 00011 01101 01100 00100**

For the next question, use A=1, 2 and B=3, 4

4. **31214 24313 24411 13221 22241 32141 21443 21321 12434 11422 22144 12431 21312 12443 13424 21431**

Baconian Cipher

Sometimes, symbols other than A and B are used. For example, A may be represented by 0 and B may be represented by 1. A and B may also be represented by more than one symbol. For example, A may be represented by odd numbers (1, 3, 5, 7, 9) and B may be represented by even numbers (0, 2, 4, 6, 8). Take a look at the following examples.

Solve the following using the given key.

AAAAA	A	**AABBA**	G	**ABBAA**	N	**BAABA**	T
AAAAB	B	**AABBB**	H	**ABBAB**	O	**BAABB**	U/V
AAABA	C	**ABAAA**	I/J	**ABBBA**	P	**BABAA**	W
AAABB	D	**ABAAB**	K	**ABBBB**	Q	**BABAB**	X
AABAA	E	**ABABA**	L	**BAAAA**	R	**BABBA**	Y
AABAB	F	**ABABB**	M	**BAAAB**	S	**BABBB**	Z

5. **This baconian cipher has been encoded with A = 0, 1, 2, 3, 4 and B = 5, 6, 7, 8, 9. What does it say?**

   05612 37849 01234 01253 64071 28935 40617 28349 05123 46701 23489
   05612 34701 82349 50126 37401 82349 01523 64078 12934 50123 64701
   23401 82349 50162 34701 23489

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   _____.

6. **This baconian cipher has been encoded with A = ←, → and B = ⇐, ⇒. What does it say?**

   ⇐←→⇒← →⇐⇒←⇐ →⇒←→← →⇐⇒←→ ←→⇐←⇒ →⇐←→← →⇒⇐←→
   ←⇒→←→ ⇐←→⇒← ⇐→⇒⇐← →←→←→ ←⇒⇐→← →←→⇒⇐ ←→←→⇒
   ←→⇐←→ ⇒←⇐⇒→ ←⇐⇒→⇐ ←⇒⇐→← →←→⇒⇐

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7. **To encode a message, use the table and write out the letters A and B. For this example, use A = ○ and B = □ to encode your first name.**

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