

Braille is one of the most important codes in the world – it is used by visually impaired people to read and write.

It is easy: there are six dot positions, and the dots are raised up (so you can feel them) in special patterns.

Each pattern of dots is a ‘character’ (a letter or number, etc.)

1. Can you find an item at home that has braille on it?
2. Estimate how many different combinations of symbols can be made with this six-dot array?



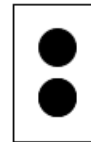
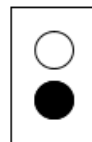
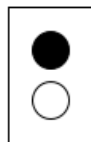
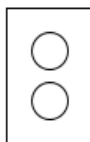
### Let's find a pattern.

If Braille was only made of one dot, how many combinations are there?



It can either be raised or not raised therefore 2 possibilities.

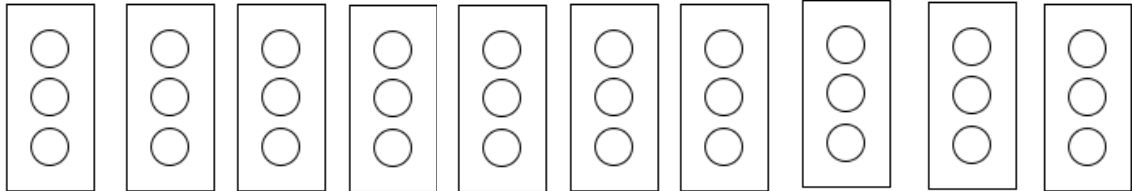
If Braille was made of two dots, how many combinations are there?



There are 4 different possibilities.

3. How many possibilities are there with three dots?

Draw them. *(There may be more/less diagrams than needed)*



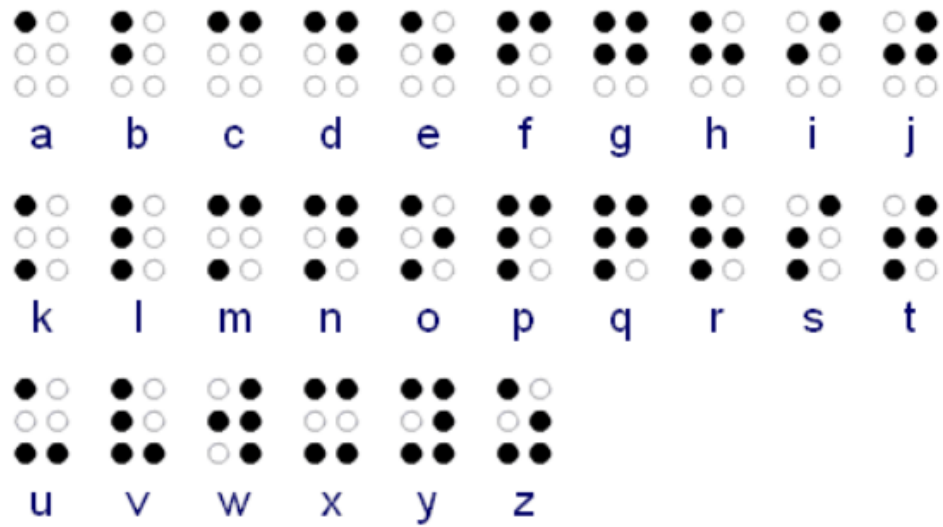
b) How many possibilities are there with four dots?

c) Can you work a pattern?

Numbers of dots	Numbers of different possibilities
1	2
2	4
3	
4	
5	
6	

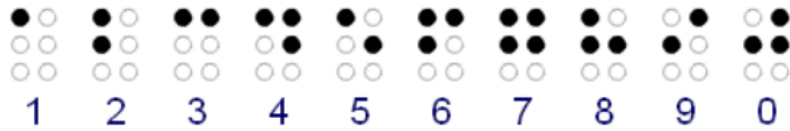
d) Why do you think a 6-dot array was chosen for braille?

These are the dot patterns for the 26 letters of the alphabet:

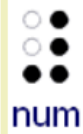


4. Are there any similarities/differences between the first group of letters? (a to j) and the second group of letters (k to t)?

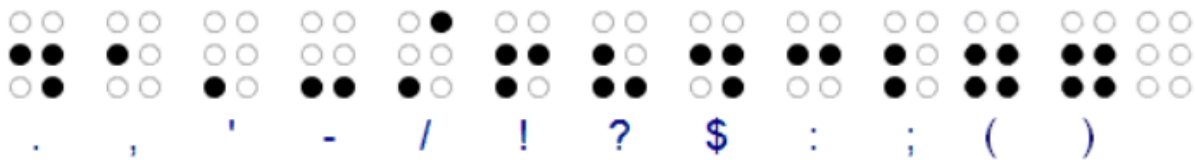
## Numbers



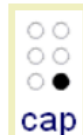
The patterns for the numbers are **exactly the same** as for the letters **a to j**. So there is this special character to put in front of numbers:



## Punctuation



## Capital Letters



Capital Letters are shown by putting this special character in front of them

5. Can you write your name in braille?  
Do not forget to use the capital letter symbol!

6. What does this say?



7. Write a simple message to your friends in braille.

8. This is the basic braille alphabet, braille numbers and braille punctuation.  
Can you find 3 more facts about braille?