

Programming Challenge

The user wishes to roll a number of dice with distinct faces. There are four different types of dice:

Faces					
B	d	d	s	s	C
B			d	d	D
B			s	s	S
B	-				

The user expects to call a function, `diceResults`, that accepts an array of dice. The function computes all possible combinations of results and returns the combinations and the number of times it occurs.

Rules for combining the rolls:

- Blanks are ignored
- A - cancels out any non-blank, non-dash, non-B roll. The order for canceling dice is C, s, d, S, D
- left over dashes are not included in the results
- A B cancels out a C, S, or D, in that order
- Order does not matter, i.e., a ds is the same as an sd

Example results:

- Bd . . => nothing (the B cancels the d and the two blanks are ignored)
- sds . => dss (blank is ignored)
- dss . => dss (blank is ignored)
- d . s - => d (- cancels the s, blank is ignored)
- CsD-S . s => DSss (- cancels the C, blank is ignored)
- sdsd-- => dd (the two - cancel the two s)
- BB--dsC => B (the two - cancel the C and the s)
- s-- => nothing (one - cancels the s, the other - is dropped from the final results)

So if the user calls `diceResults([B, , , s, s, S], [B, -, , , ,])` the expected return is:

- BB: 1
- B: 7
- s: 8
- S: 4
- blank: 16