## 1. Problem

Describe the following Cardinal vowels according to the three parameters vowel height, frontnessbackness, and lip rounding:

- (a) e is the close / near-close / close-mid / mid / open-mid / near-open / open front / front centralized / central / back centralized / back unrounded / rounded vowel.
- (b) Œ is the close / near-close / close-mid / mid / open-mid / near-open / open front / front centralized / central / back centralized / back unrounded / rounded vowel.

## Solution

For an overview of the 18 Cardinal vowels see https://en.wikipedia.org/wiki/Cardinal\_vowels.

- (a) e is the close-mid front unrounded vowel.
- (b) Œ is the open front rounded vowel.