

These problems are from the [13th edition of Language Files](#).

Standard Spanish

Examine the phones [d] and [ð].

Determine whether they are allophones of one phoneme or are separate phonemes.

If they are allophones of one phoneme, state a rule that describes their distribution.

If [d] and [ð] are allophones of separate phonemes, give minimal pairs that prove this, or show that they are not in complementary distribution.

- a. [drenar] 'to drain'
- b. [dentro] 'within'
- c. [dia] 'day'
- d. [aðonde] 'where'
- e. [ajuða] 'help'
- f. [ðioma] 'language'
- g. [duða] 'doubt'
- h. [bendito] 'blessed'
- i. [laðear] 'to tilt'
- j. [aldea] 'village'
- k. [deðo] 'finger'
- l. [toldo] 'canopy'

Russian

Determine from the following Russian data whether [a] and [ɑ] are allophones of the same phoneme or are separate phonemes.

If they are allophones of separate phonemes, provide evidence for your claim.

If they are in complementary distribution, pick one as the phoneme, and give the environments where it changes into its allophone.

For this problem, you don't need to try to express the rule in features because there are some relevant sounds in this dataset that are not in our feature charts: [pʲ] [tʲ] [dʲ] [zʲ] [lʲ] [mʲ] are palatalized consonants.

- a. [alt] 'viola'
- b. [tak] 'so'
- c. [pʲatʲkə] 'heel'
- d. [matʲ] 'mother'
- e. [pʲatʲ] 'five'
- f. [trʌvɑ] 'grass'
- g. [dʲadʲə] 'uncle'
- h. [miatʲ] 'to crumple'
- i. [vɑʃ] 'your (plural)'
- j. [ziatʲ] 'son-in-law'