

### Sudanese Colloquial Arabic

For this problem, identify and describe the alternation in the nouns for ‘country’ and ‘girl’; then, determine each noun’s underlying form. Write (a) rule(s) to account for the alternation, using the features given below. The inventory of phonemes is given for reference.

balat fihim	‘a country understood’
balat xirib	‘a country was ruined’
balat ħaarab	‘a country fought’
balad malak	‘a country owned’
balad wazzaʕ	‘a country distributed’
balad ribih	‘a country profited’
balad liʕib	‘a country played’

bit faahma	‘a knowledgeable girl’
bit xaamsa	‘fifth girl’
bit ħilwa	‘a beautiful girl’
bit laʔiima	‘a wicked girl’
bit mard <sup>ʕ</sup> aana	‘a sick girl’
bit wannaasa	‘storyteller girl’

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balas samħa	‘a beautiful country’
balaf ʃaaf	‘a country saw’
balaz ziʕil	‘a country got angry’
balad <sup>ʕ</sup> d <sup>ʕ</sup> ʒaab	‘a country brought’

biz zakiyya	‘an intelligent girl’
bid <sup>ʕ</sup> d <sup>ʕ</sup> ʒamila	‘beautiful girl’
bis samħa	‘a beautiful girl’
bif ʃeena	‘an ugly girl’

## Inventory of phonemes for Sudanese Colloquial Arabic

The diacritic [C<sup>ʕ</sup>] indicates there is a pharyngeal secondary articulation involved. This is not relevant for the problem; it is just for your information. (People will call these consonants ‘emphatic’ sometimes.)

	labial	dental	alveolar	palato-alveolar	palatal	velar	uvular	pharyngeal	glottal
stop	p		t <sup>ʕ</sup> d <sup>ʕ</sup>			k	q		ʔ
nasal	m		n						
fricative	f	θ ð <sup>ʕ</sup>	s <sup>ʕ</sup> z	ʃ			χ ʁ	ħ ʕ	h
trill			r						
affricate				ḏ <sup>ʕ</sup>					
approx.				l	j		w		

	Voicing	Manner	Region	Sonorant
b	+voice	plosive	labial	-sonorant
f	-voice	fricative	labial	-sonorant
t	-voice	plosive	coronal	-sonorant
d	+voice	plosive	coronal	-sonorant
s	-voice	fricative	coronal	-sonorant
ʃ	-voice	fricative	coronal	-sonorant
z	+voice	fricative	coronal	-sonorant
ḏ <sup>ʕ</sup>	+voice	affricate	coronal	-sonorant
k	-voice	plosive	back	-sonorant
g	+voice	plosive	back	-sonorant
x	-voice	fricative	back	-sonorant
ɣ	+voice	fricative	back	-sonorant
ħ	-voice	fricative	pharyngeal	-sonorant
ʕ	+voice	fricative	pharyngeal	-sonorant
m	+voice	nasal	labial	+sonorant
n	+voice	nasal	coronal	+sonorant
r	+voice	liquid	coronal	+sonorant
l	+voice	liquid	coronal	+sonorant
w	+voice	glide	labio-velar	+sonorant