

F Pirahã, a language spoken by about 300 hunter gatherers living in the Amazonian rain forest, has only three vowels, **i, a, o**, and eight consonants, **p, t, k, ʔ, b, g, s, h**. (ʔ is the symbol for a glottal stop, a sound that does not have any lip or tongue action.) How many different gestures of the tongue and lips do the speakers of this language have to make? Note which are vocalic gestures and which are consonantal gestures.

G Hawaiian, now undergoing a revival although spoken natively by only a few hundred people, has the following vowels and consonants: **i, e, a, o, u, p, k, ʔ, m, n, w, l, h**. How many different gestures of the tongue and lips do the speakers of this language have to make? Note which are vocalic gestures and which are consonantal gestures.
