

### **Problem 1:**

Here are the Basque numerals with their corresponding numerical values in a mixed order:

*berrogeita bi, laurogeita hiru, berrogeita hamasei, hirurogeita hamar, hogeita bost, laurogei, hirurogeita hamazortzi, berrogeita lau, hogeita hamazazpi*

And here are the corresponding numbers, but also in a mixed order:

80, 56, 44, 78, 37, 42, 25, 83, 70

**A:** Match each numeral with its corresponding number.

**B:** Translate the following numbers to Basque numerals: 14, 53, 30

**C:** Translate the following numerals from Basque: *laurogeita hamabost, hirurogeita lau, hogeita zortzi*.

### **Problem 2:**

You are provided with the set of Azerbaijani phrases with their translations in English:

1. baxmag — to look/watch
2. baxabilmamag — to not be able to look/watch
3. baxırammı — am I looking/watching?
4. baxışabilirlər — they can look at each other
5. baxmadılar — they were not looking/watching
6. baxdırabıldımı — could he force (someone) to look/watch?
7. baxmaldısan — you had to look/watch
8. baxdırıram — I force (someone) to look/watch
9. baxmasadı — if he did not look/watch

**A:** Provide the morphological analysis of these Azerbaijani forms by identifying morphemes and their meaning.

**B:** Translate the following sentences into Azerbaijani:

1. Are you looking/watching?
2. They did not look at each other.
3. To make someone look/watch.
4. If he could look/watch.

Solutions:

### Problem 2:

**Hints:** bi means 2, and basque has a base-20 counting system.

Link: <http://lingproblems.online/index.php?action=problem&vid=1471>

We can determine that this is a 20-based system because

In the Basque language, the numerals from 0 to 10 and the numeral 20 are simple: **bi** – 2, **hiru** – 3, **lau** – 4, **bost** – 5, **sei** – 6, **zazpi** – 7, **zortzi** – 8, **hamar** – 10, **hoge** – 20.

The numerals from 11 to 19 are formed from the numeral 10 (**hamar**) by adding the numerals from 1 to 9: **hamasei** – 16, **hamazazpi** – 17, **hamazortzi** – 18. In these forms, the variant **hama-** is used with the final **r** dropped.

Two-digit multiples of 20, namely 40, 60, and 80, are formed from 20 (**hoge**): **berrogei** – 40 ("2 times 20"), **hirurogei** – 60 ("3 times 20"), **laurogei** – 80 ("4 times 20"). In these forms, the variant **-rogei** is used with an inserted **r**.

It should be noted that 2 in Basque is **bi** (12, accordingly, **hamabi**), while 2 in the numeral 40 ("2 times 20") appears in the form **ber-**.

In the formation of numerals that are not multiples of 20, numerals from 1 to 19 are used: **hogeita bost** – 25, **hirurogeita hamar** – 70 ("3 times 20 and 10"), **berrogeita hamasei** – 56 ("2 times 20 and 16"). **-ta** is a reduced form of the conjunction **eta** "and," which is added to the "twenties."

Vigesimal (base-20) counting systems, like the Basque one, are not uncommon in world languages, being the second most widespread after decimal systems.

A: **berrogeita bi** – 42, **laurogeita hiru** – 83, **berrogeita hamasei** – 56, **hirurogeita hamar** – 70, **hogeita bost** – 25, **laurogei** – 80, **hirurogeita hamazortzi** – 78, **berrogeita lau** – 44, **hogeita hamazazpi** – 37.

B: 14 – **hamalau**, 53 – **berrogeita hamahiru**, 30 – **hogeita hamar**.

C: **laurogeita hamabost** – 95, **hirurogeita lau** – 64, **hogeita zortzi** – 28.

