

1 What is Linguistics?

No, studying linguistics doesn't mean that you know multiple languages! Linguistics is the study of how language is structured and how it works.

Why is this important? Linguistics is important because we see it every day around us, even though we may not realize it! For instance, programs such as Siri or Alexa rely on linguists to help develop technology that recognizes human speech.

Today, we'll take a look at some linguistic puzzles. These puzzles are based on languages that we don't know, but we can use critical thinking and problem solving skills to decode the puzzles.

2 Agta

Let's look at the fascinating language of Agta:

Agta is spoken by people in the Philippines. But, only 600 people speak native Agta!!

The following are some Agta words, followed by their English translations. Look at these words carefully and try to answer the questions below:

wer	'creek'	balabahuy	'little pig'
talatakki	'little leg'	talobag	'beetle'
takki	'leg'	bakbakat	'granny'
labang	'patch'	palapirak	'little money'
walawer	'little creek'	bahuy	'pig'

Solve for the following:

1. little beetle
2. money
3. little granny
4. little patch

HINT: Look for similarities in the beginning of the word! Try to find clues.

3 A Cat and Mouse Story

Your friend has joined a club and is trying out their new language. He has replaced the words down, into, up, run, mouse, and street with the words gwee, ippip, trowby, foba, poble, and gorch. You can't yet tell which is which, so you have this conversation:

You: So, it started off with the cat pombing the trowby gwee

Him: That's nonsense; that's not even a good sentence.

You: Could I say The cat pombled the foba gwee?

Him: That's just as bad.

You: It was gwee the foba that the cat pombled, right?

Him: Correct.

You: Then the cat pombled gorch the foba and ippip the foba.

Him: Yes.

You: And the cat pombled gorch the foba and ippip the trowby?

Him: Youre talking nonsense again.

You: But it was ippip the trowby that the cat pombled?

Him: You dont know how to use words, do you?

You: The cat pombled the trowby ippip.

Him: That sounds a lot better.

What do the following words mean? Context clues are useful to give you hints, but to prove which words mean which, you should also use your friends judgments about your attempted sentences.

4 Cryptarithms

Cryptarithms are equations with letters instead of numbers! Each puzzle has a few words summed together, and you have to figure out which number corresponds to each letter (each letter only represents one number). Example: $CP + IS + FUN = TRUE$ translates to $23 + 74 + 798 = 1065$

Now you try:

1. $APPLE + GRAPE = CHERRY$
2. $EARTH + SATURN = TRITON$
3. $EARTH + PHOBOS = EUROPA$

5 Challenge Problems

5.1 Linguistic Puzzles

The following are some Turkish words, followed by their English translations. Look at these words carefully and try to answer the questions below:

kilimler	'carpets'	arabalar	'cars'
kilimde	'in the carpet'	deniz	'ocean'
deftere	'to the notebook'	masa	'table'
defterlerde	'in the notebooks'	ev	'house'
adamlara	'to the men'	tarafarda	'in the sides'
defter	'notebook'	okula	'to the school'

Solve for the following:

1. 'in the ocean'
2. 'tables'
3. 'to the houses'
4. 'in the notebook'

5.2 Cryptarithms

1. $CHARON + EARTH + MOON = TRITON$
2. $LEMON + PAPAYA + PEAR = ORANGE$