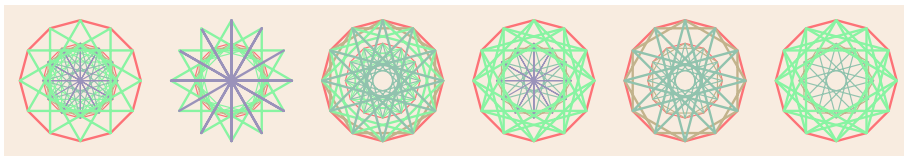


Exercise 3 for Students of Computer Science

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Some schools have allowed students to satisfy a requirement for the study of a foreign language by studying a programming language.

Can you make an argument for or against such a policy?

- What languages have you studied?
- What do the words “natural language” and “world language” mean? Look on the Internet for the answers.
- Look at “[All the World Languages in One Visualization](#),” by Iman Ghosh. It contains an illustration created by Alberto Lucas Lopez.
- Search on the Internet for the answer to a question like: “How many words do I need to know to be fluent in French?” Ask the same question about other languages.
Compare the answers to what you see in figure 1.
- Try to categorize some of the rules of grammar a student of a foreign language must learn. For example, you might list tenses, endings on adjectives, genders for nouns, ways of constructing plurals, grammatical moods

(for example, imperative and subjunctive), grammatical voices (active and passive).

Now, contrast that with the number of different kinds of control flow statements in the Java programming language. A search with the words “Java control flow statement” will take you to the answer.

- Contrast the reasons you might study Russian (or another natural language) with your reasons for studying Java (or another programming language)?
- What kinds of challenges do you anticipate in the study of a natural language? in the study of a programming language? How might the challenges in the two kinds of study differ?
- Find one or more classmates who have studied a programming language. Ask your friends: Which parts of your course were easy? Which were hard?
- You may have heard classmates say: “I am no good at foreign languages.” These classmates might have given up on their efforts to learn a second language. What do you think? Is success truly beyond these people? Is it really a case that we either have the aptitude or we do not have the necessary aptitude? Look at the many people in the world who have decided that they must learn a new language and are succeeding in their efforts. What do you think makes them successful?

Java Language Keywords

These keywords may not be used as identifiers.

The keywords **const** and **goto** are not currently used in the Java programming language, but are reserved just the same.

The words **false**, **null**, and **true** are literals, not keywords. They also may not be used as identifiers.

abstract	continue	for	new	switch
assert	default	goto	package	synchronized
boolean	do	if	private	this
break	double	implements	protected	throw
byte	else	import	public	throws
case	enum	instanceof	return	transient
catch	extends	int	short	try
char	final	interface	static	void
class	finally	long	strictfp	volatile
const	float	native	super	while

Figure 1: Keywords of the Java Programming Language.