Exercise 8 for Students of Computer Science

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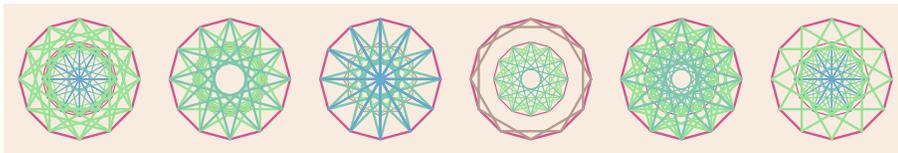
An Introduction to the Study of Programming Languages

1. What was the first high level programming language? Who led the team that created it? When? Where?

2. Search online for a list of programming language paradigms. How are computer scientists using the word "paradigm?" What are some of the paradigms? Which are familiar to you? Which are new to you?

3. Find a list of the winners of the A.M. Turing Award (available online). The ACM (Association for Computing Machinery, a professional society), confers this award annually to persons who have made notable contributions to computer science.

   Which of the winners earned recognition through contributions to the development of programming languages?

4. Java is not only the name of a programming language. It is also the name of a place. Where is Java?

5. Kotlin is not only the name of a programming language. It is also the name of a place. Where is Kotlin?

6. Who led the team that developed the Java programming language?

7. Which organization sponsored the development of the Java programming language?

8. What is the birthday of the Java programming language?

9. Take a look at the TIOBE index (available online). What did you learn?

10. What kind of organization is TIOBE? From where did it get its name?

11. IEEE Spectrum publishes a Web app titled "Top Programming Languages." (The IEEE is the Institute of Electrical and Electronics Engineers. Like the ACM, the IEEE is a professional society.)

    What did you learn?

12. What is a feature of the Java programming language that first appeared in Java 5?

13. What is a feature of the Java programming language that first appeared in Java 8?

14. What do these pairs of terms have in common?

UCSD Pascal	p-code
Java	Java bytecode (or look at the JVM)
.NET languages	IL (also called CIL)

15. Look online to find posts, articles, or videos by or about Andrey Breslav. Compose a paragraph with which you could introduce Andrey Breslav to a friend—or to a member of your family on your next call home.

16. Look online to find posts, articles, or videos by or about Martin Odersky. Compose a paragraph with which you could introduce Martin Odersky to a friend—or to a member of your family on your next call home.