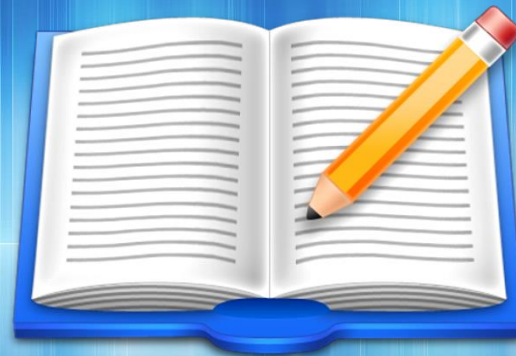


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DIGITAL WORLD

CHAPTER 1 - EXERCISES



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EXERCISE 1

- **Chapter 1 – Activity 2 (School Book p.129)**
 - Write a list with all the analog and digital devices that are available in your house.
 - What are the advantages of digital devices against analog devices? For example you can compare a cd-player with an old fashioned cassette player.

EXERCISE 2

- Convert the following numbers:
 - 1011011 to decimal system
 - 0111110 to decimal system
 - 1650 to binary system
 - 270 to binary system

- Solve the following operations in binary system:

$$\begin{array}{r} 00011101 \\ + 01101010 \\ \hline \end{array}$$

$$\begin{array}{r} 01011 \\ + 00111 \\ \hline \end{array}$$

EXERCISE 3

- **Chapter 1 – Activity 1 (School Book p.129)**
 - If an encyclopedia has 10 volumes, each volume has 200 pages and each page has 2000 characters, then how many BYTES approximately it needs to be saved in a hard disk?
- **Chapter 1 – Activity 3 (School Book p.129)**
 - With the help of ASCII table (presented in your school book) describe how the word **DOG** is represented inside your computer in binary form.

EXERCISE 4

■ Chapter 1 – Questions (p.108)

1. Why a computer uses the binary system (0 or 1) instead of the decimal system?
2. How many characters can be saved in a hard disk with 500 GB capacity?
3. When we write a text in a computer, what is the form of the inserted characters?
4. What is the ASCII code?