Тема занятия: История создания компьютеров

Цели занятия: выучить лексический материал по теме «История создания компьютеров»; совершенствовать навыки чтения и перевода текста профессионального направления; систематизировать знания, выполнив задания по теме занятия.

Уважаемые студенты! Ознакомьтесь с материалами практического занятия на тему «История создания компьютеров». Конспект занятия выполняйте **в рабочей тетради письменно**, **обязательно указывая дату занятия, тему занятия, номер упражнения.** Ответы предоставить преподавателю на проверку **до 10. 03. 2023 г.** в электронном виде **(фотоотчёт)** на e-mail mikagol2605@mail.ru. Телефон преподавателя для консультации и возникающих вопросов: 072-14-15-816.

С уважением, Голодюк Марина Викторовна.

1. **Запишите новую лексику в словарь, выучите новую лексику.**
2. **Прочитайте и устно переведите текст «The first calculating devices».**
3. **Дайте письменно ответы на вопросы к тексту.**

The first calculating devices

Vocabulary:

calculating device — вычислительное устройство

multiple — прибавлять, суммировать, складывать

abacus — счеты

logarithm table — логарифмическая таблица

calculus — исчисление; математический анализ

general-purpose — общего назначения, универсальный

to cut out the human being altogether — полностью исключить человека

data processing — обработка данных (информации)

tabulate the census — занести данные по переписи (населения) в таблицу

means of coding — средства кодирования (шифровки)

to punch the holes — пробивать отверстия

to manipulate — обрабатывать, преобразовывать; управлять

punched card — перфокарта

to perform — выполнять, производить (действие); осуществлять;

unit of data — единица информации

keyboard terminals — терминал (вывод) с клавишным управлением

proliferation — размножение, быстрое увеличение

Let us take a look at the history of computers that we know today. The very first **calculating device** used was the ten fingers of a man's hands. This, in fact, is why today we still count in tens and **multiples** of tens.

Then the **abacus** was invented. People went on using some form of abacus well into the 16th century, and it is still being used in some parts of the world because it can be understood without knowing how to read.

During the 17th and I8lh centuries many people tried to find easy ways of calculating. J. Napier, a Scotsman, invented a mechanical way of multiplying and dividing, which works till today. Henry Briggs used Napier's ideas to produce **logarithm tables** which all mathematicians use today.

Calculus, another branch of mathematics, was independently invented by both Sir Isaak Newton, an Englishman, and Leibnitz, a German mathematician. The first real calculating machine appeared in 1820 as the result of several people's experiments.

In 1830 Charles Babbage, a gifted English mathematician, proposed to build a **general-purpose** problem-solving machine that he called "the analytical engine". This machine, which Babbage showed at the Paris Exhibition in 1855, was an attempt **to cut out the human being altogether**, except for providing the

machine with the necessary facts about the problem to be solved. He never finished this work, but many of his ideas were the basis for building today's computers.

By the early part of the twentieth century electromechanical machines had been developed and were used for business **data processing**. Dr. Herman Hollerith, a young statistician from the US Census Bureau successfully **tabulated the 1890 census**. Hollerith invented a **means of coding** the data by punching holes into cards. He built one machine to **punch the holes** and others — to tabulate the collected data. Later Hollerith left the Census Bureau and established his own tabulating machine company. Through a series of merges the company eventually became the IBM Corporation.

Until the middle of the twentieth century machines designed **to manipulate punched card** data were widely used for business data processing. These early electromechanical data processors were called unit record machines because each punched card contained a **unit of data**.

In the mid—1940s electronic computers were developed to perform calculations for military and scientific purposes. By the end of the 1960s commercial models of these computers were widely used for both scientific computation and business data processing. Initially these computers accepted their input data from punched cards. By the late 1970s punched cards had been almost universally replaced by **keyboard terminals**. Since that time advances in science have led to the **proliferation** of computers throughout our society, and the past is but the prologue that gives us a glimpse of the nature.

Дайте <u>письменно</u> ответы на вопросы к тексту.

1. What was the very first calculating device?
2. What is the abacus?
3. What is the modern slide rule?
4. Who gave the ideas for producing logarithm tables?
5. How did Newton and Leibnitz contribute to the problem of calculation?
6. When did the first calculating machine appear?
7. What was the main idea of Ch. Babbage's machine?

8. How did electromechanical machines appear and what were they used for?

9. What means of coding the data did Hollerith devise?

10. How were those electromechanical machines called and why?

11. What kind of computers appeared later?

12. What new had the computers of 1970s?