

Computers origins

The first suggestion that a machine for mathematical computation could be built was made more than a hundred years ago by the mathematician Charles Babbage. We now realize that he understood clearly all the fundamental principles of modern computers.

Babbage was born in Devonshire, England, 1792. He did not receive a good education, but he taught himself mathematics so well that when he went in Cambridge, he found that he knew more algebra than his tutor.

At that time mathematics in Cambridge was still under the influence of Newton and was quite unaffected by the contemporary developments on the continent.

Charles Babbage was outstanding among his contemporaries because he insisted on practical application of science and mathematics. For example, he wrote widely on the economic advantages of mass productions and on the development of machine tools.

In 1812 he was sitting in his room looking at a table of logarithms which he knew to be full of mistakes, when an idea occurred to him of computing all tabular functions by machinery. Babbage constructed a small working model which he demonstrated in 1822.

The Royal Society supported the project and Babbage was promised a subsidy.

In 1833 he began to think of building a machine which was in fact the first universal digital computer, as the expression is understood today.

Babbage devoted the rest of his life to an attempt to develop it. He had to finance all of the work himself and he was only able to finish part of the machine though he prepared thousands of detailed drawings from which it could be made.

Babbage wrote more than 80 books and papers, but he was misunderstood by his contemporaries and died a disappointed man in 1871.

He tried to solve by himself and with his own resources a series of problems which in the end required the united efforts of two generations of engineers.

After his death his son continued his work and built part of an arithmetic's unit, which printed out its results directly on paper.

Vocabulary

to insist	настаивать
table	таблица
to devote	посвящать
to continue	продолжать
Fundamental principals	основные принципы
Advantage	преимущество
to print	распечатать
to finance	финансировать
computation	вычисление

ЗАДАНИЯ:

1. Translate the words from Russian into English (Переведите слова с Русского языка на Английский)

1) Математические

вычисления _____

2)

принципы _____

ОСНОВНЫЕ

3) Хорошее

образование _____

4) Практическое применение науки и

математики _____

5) Экономические преимущества

производства _____

6)

Логарифм _____

7) Подсчет функций при помощи

машины _____

8)

Конструировать _____

9) Рабочая

модель _____

10) Цифровой

компьютер _____

11) Арифметический

центр _____

12) Распечатать

результаты _____

13) Основные принципы современных

компьютеров _____

14)

Математик _____

15)

Финансировать _____

2. Answer the questions to the text. (Ответьте на вопросы по тексту)

1) When was the first suggestion about computers made?

2) When did Babbage demonstrate a small working model?

3) Did anybody finance all of the work?

4) When did Babbage die?

5) Who continued his work?

6) He did not receive good education, did he?

7) Why was Babbage outstanding among his contemporaries?

8) Who wrote on the economic advantages of mass productions?

9) Who built apart of an arithmetic unit after his death?

10) When did he begin to think of building a machine?

11) At that time mathematics in Cambridge was under the influence of Newton, wasn't it?