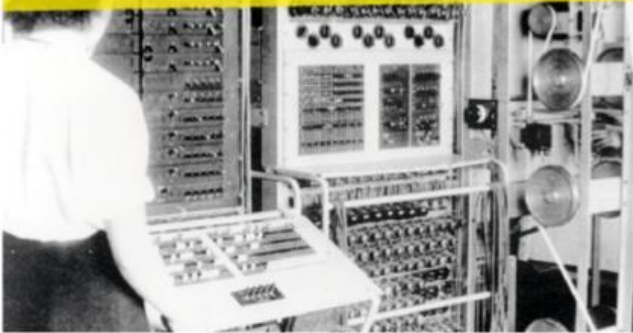


Computer pioneers

During the 1930s, German military power was increasing. Its neighbours – in particular, Poland and France – were becoming more and more worried about the danger of an invasion. In Poland, a team of brilliant young mathematicians worked hard to break Germany's military codes. It was difficult because the Germans used a complex machine called Enigma to send and receive their codes. But by 1938, the Polish team could understand 75% of Germany's secret messages. This was mainly thanks to an invention by Marian Rejewski called the *bomba*. However, that year, the Germans changed their Enigma machines and made the codes far more difficult to break. As World War II began, the Polish team shared their ideas about Enigma with British and French code-breakers.

CODE - BREAKERS



A team of code-breakers – men and women – worked at a secret location in the south of England: Bletchley Park. They included Alan Turing, a mathematician with an interest in computing. At Bletchley Park, he designed an early form of computer which they called the Bombe. (It was based on Rejewski's design.) They used it to help break complex codes. Compared to today's computers, the Bombe was huge and not very powerful. But at the time, it was some of the most advanced technology in the world. It made the work of the code-breakers much faster.

Marian Rejewski worked as a code-breaker in Britain during the war. In 1946, he returned to Poland and worked as an accountant. He kept his code-breaking work secret from everybody until 1967! But today, his work is celebrated each year at Bletchley Park.

3 Put the events in the order they happened, according to the text.

- a Marian Rejewski worked as an accountant. ____
- b Alan Turing invented the Bombe computer. ____
- c World War II began. ____
- d Marian Rejewski invented a machine for breaking codes. ____
- e Marian Rejewski spoke publicly about his code-breaking work. ____
- f A group of code-breakers started work at Bletchley Park. ____
- g World War II ended. ____

6  3.33 Listen again. Are the sentences true or false? Write T or F.

- 1 Ada Lovelace grew up with a famous writer. ____
- 2 As a child, Lovelace showed no particular ability at maths. ____
- 3 Charles Babbage designed complex machines but didn't finish building them. ____
- 4 Lovelace realised that Babbage's invention could do complex calculations by following a program. ____
- 5 Lovelace described the idea behind computer programs but she did not actually write one. ____
- 6 Ada is now the name of a type of computer. ____

