ALAN TURING

b. 6/23/1912

d. 6/7/1954

MATHEMATICIAN

"I believe that at the end of the [20th] century … one will be able to speak of machines thinking without expecting to be contradicted."

Alan Turing led the British code-breaking team that broke the German Enigma Code, thereby shortening World War II, saving many lives and helping the Allies win the war. Turing is considered the father of computer science.

Alan Turing was by nature skeptical and indifferent to conventional values. While often at odds with authority, he made remarkable connections between apparently unrelated areas of inquiry, including treating symbolic logic as a new area of applied mathematics.

As a fellow at King's College, Cambridge, Turing wrote On Computable Numbers, his landmark paper published in 1936, which is considered the founding work of modern computer science. After completing doctoral work at Princeton University, Turing returned to Britain in 1938 shortly before the outbreak of the Second World War.
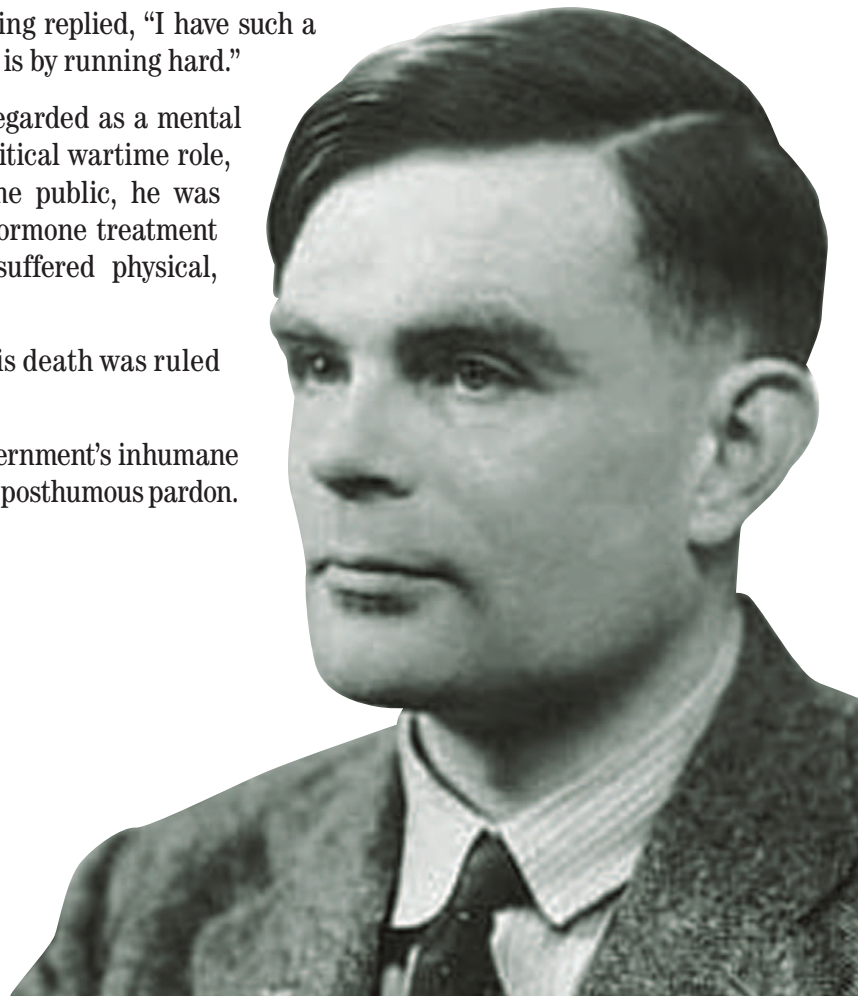
Turing's potential ability as a code breaker had been identified and he was introduced to secret operations at the Government Codes and Ciphers School in London. On September 4, 1939, the day after Britain declared war on Germany, Turing reported to work at Bletchley Park, Britain's codebreaking center. He led the team that broke the German codes thereby assuring success for the Allies and shortening World War II.

At the conclusion of the war, Turing's ambition was to create a computer. His contention that the computer could rival the computing power of the human brain correctly anticipated the field of Artificial Intelligence. In the postwar years, Turing competed as a distance runner, achieving near-Olympic race times in the marathon. When asked why he engaged in such demanding training, Turing replied, "I have such a stressful job that the only way I can get it out of my mind is by running hard."

Alan Turing lived at a time when homosexuality was regarded as a mental illness and homosexual acts were illegal. Despite his critical wartime role, when his relationship with a Manchester man became public, he was charged with "gross indecency" and forced to accept hormone treatment with estrogen. He lost his security clearance and suffered physical, emotional, and cognitive effects from the treatment.

Turing died in 1954 shortly before his 42nd birthday. His death was ruled a suicide.

In 2009, the British Prime Minister apologized for the government's inhumane treatment of Turing. The Parliament is expected to issue a posthumous pardon.