

Charles Babbage drew up plans for the first computer in the 1820s. Although never built, Babbage's 'Difference Engine' was 1) ______ to perform one mathematical calculation at a time. Nowadays, computers make 100 billion calculations per second. The human brain, though, makes 100 trillion calculations per second. So will computers ever match the human brain? Maybe, with Al (artificial intelligence).

If we get too 2) _____ a fire, we get burnt. We remember this and make sure we do not go close to that fire again. This is called learning through experience, and it's an ability we all have. Will technology ever share this ability? Experts think so. Al will be technology that allows a machine to think like a human. It will learn from experience, solve and make its own decisions.

For now, our computers can only simulate the way the brain works. A company **developed** a chess playing computer complex enough to 4) _____ a chess grandmaster, but this was not AI, just a state-of-the-art computer. At home, we have digital voice assistants that can **carry out** simple tasks, but they cannot make their own decisions.

One problem with creating AI is how to 5) _____ the difference between a human being and AI. In 1950, a computer scientist, Alan Turing developed a test for technology's ability to resemble human intelligence. For many years, technology 6) ____ the test. It wasn't until 2014 that a computer program called Eugene Goostman, posing as a Ukrainian teenager, passed. It seems the AI age is almost here. What does the future hold for the intelligent machine?

- calculation billion trillion simulate
- state-of-the-art carry out resemble