

- 1** 1 University of Cambridge
 2 mathematician
 3 forty-one
 4 killed himself
 5 the UK government
 6 the Second World War
 7 *The Imitation Game*
 8 the computer
 9 AI
- 2** a 8 b 1 c 5 d 6
 e 4 f 7 g 2 h 3
- 3** 1 d 2 a 3 b 4 c 5 c 6 d
- 4** 1 f 2 g 3 e 4 b 5 c
- 5** a perception
 b learning from experience and making predictions based on data
 c problem solving and planning
 d reasoning
 e natural language understanding
- 6** 1, 3, 4, 6 and 7
- 7** 1 ring 2 posts 3 on 4 smaller
- 8** 1 You need a team of three people for a particular project.
 2 Because of their characters.
 3 Either John, George and Ringo, or Paul, George and Ringo can work together.
 4 John and George cannot work together.
 5 n is the list of people, and m is the number we need in the team.
 6 When the numbers get bigger.
- 9** 1 It seems **easy** to see the answer to this problem, and it is a **simple** recipe to program on a computer.
 2 A **fast modern** computer might be able

- to evaluate 10 billion possible teams every second.
- 3** That sounds a lot, until you realize that it would still need far, far more time to investigate all the alternatives than is available **before the end** of the universe!
- 4** At present, we **cannot** improve computer technology enough to check all these possibilities in a **sensible** amount of time.
- 5** So, although our basic approach of systematically searching through all the possible teams works in **theory**, it is not going to **be practical**.
- 6** An NP-complete problem is a problem for which it is hard to find solutions because there are **too many** of them to check with an exhaustive search.

- 10** 1 earliest 2 could
 3 successful 4 improved
 5 all 6 diagnosis
 7 uncertainty 8 incorrect
 9 and better

- 11** 1 b 2 c 3 a

12

McCarthy
Stanford University
old-world view
logic, knowledge representation and reasoning

Brooks
MIT
new-world view
the system is separated from the environment

- 13** 1 c 2 e 3 d 4 b 5 f 6 a

