Answer all of the questions in order. Allocate space to your responses in proportion to what you find interesting. You can give very short answers to some questions and answer others at length. Many of these questions require answers that would go far beyond what you can write in a few pages. The idea of this exercise is to check whether you are clued into the considerations that have been raised in class and in the readings.

1. Turing describes the Turing Test as testing for intelligence and for thought. What is the difference supposed to be, if any?
2. In a few sentences, give your opinion of the Turing Test as a practical way of assessing whether a machine can think.
3. Suppose that we produce machines that can do complex reasoning, write novels, discover new physical theories, devise strategies for avoiding wars. Suppose that a judge who is also an expert on how these machines work can discriminate between these machines and humans on the basis of her knowledge of how the currently available machines work. What should Turing say about this case given his other commitments? Should Turing say that the machine is shown to be unintelligent because the judge can tell them from humans?

In questions A, B, C and D, your task is to evaluate the four objections that follow, conceiving of the Turing Test NOT as a practical way of assessing whether a machine can think, but as an account of what thinking is, i.e., an account such that

something thinks $\leftrightarrow$ it would pass the test.

Say whether the objection is relevant to the $\rightarrow$ part of the claim or to the $\leftarrow$ part of the claim.

A. An intelligent machine might believe that were it to pass the Turing Test, people would take it apart to see how it worked. So it might intentionally fail.

B. Recall that 5 of the 10 judges in the First Turing Test thought that a version of Weizenbaum's program was human. So naive humans might be said to be too gullible for Turing Test purposes. Suppose the government decided to make Weizenbaum's ELIZA program vastly
larger by adding more and more canned responses and developing hardware to get the machine to deliver the canned responses quickly. The resulting SUPERELIZA program, still a bag of tricks, might be thought to be intelligent even by judges who are wise to the ELIZA tricks.

C. An intelligent cave-person might be very good at telling men from women in the imitation game, but nonetheless hopeless at telling people from machines because of lack of familiarity with technology. With such an ignorant judge, unintelligent machines--even iPhones--may consistently pass the Turing Test. Further, it will do no good to specify that the judge be selected randomly, for in a cave-society (where everyone is unfamiliar with technology) unintelligent machines may consistently pass, and thus will be intelligent, relative to that society, according to the Turing Test conception of intelligence. Of course, an unintelligent machine such as an iPhone will be incapable of the genuine thinking that the cave people manage easily, e.g., figuring out where to find food, understanding why the fire went out, and the like. So the machine won't be genuinely intelligent, even by the standards of that society.

D. The last two objections depend on the possibility that the judge may lack the abilities necessary to discriminate intelligent machines from unintelligent ones. Is there some way of specifying the nature of the judge—compatibly with Turing's aims—so as to avoid such problems?