APA citation exercises

Each of the following sentences contains at least one mistake in the way that it formats a quotation or references a source. Correct all of the mistakes.

As far as the popular usage of words such as think, know, learn, and understand, is concerned, the question of whether machines can think appears to have been settled already — just as predicted by Alan Turing on page 442 of his classic 1950 paper, Computing Machinery and Intelligence.

The difference between programs and brains is alleged to arise because of a lack of "a certain mental content" in the computer (Searle, p. 423).

As Turing (1950) himself put it, "the problem of passing a Turing test is mainly one of programming" (p. 455): although a software brain can be constructed in principle, how can it be done in practice?

In his much-debated "Chinese room" case against machine intelligence, John Searle addressed some specific claims about some early work in AI by Schank and Abelson, in which the computer could somewhat realistically answer questions about certain types of stories, thus understanding the stories in some sense.

As we can see from Searle (1980), one of the objections is intimately bound up with the difficult philosophical concept of intentionality: "formal symbol manipulations by themselves don't have any intentionality; they are quite meaningless. Such intentionality as computers appear to have is solely in the minds of those who program them and those who use them, those who send in the input and those who interpret the output." (p. 422)

As Margaret Boden points out, the rather precise details of some parts of the nervous system (in this case, elementary visual processing that detects edges) are already known, and this tiny but significant progress in mapping the brain seems to demonstrate the long-term feasibility of obtaining all the necessary data.

Searle (1980) actually agrees that machines can think, because "he believes humans are machines" (p. 422).

Hofstadter's "pq-system" is a very simple, but illuminating, example of formal symbols acquiring meaning, also quoted by Boden.