

Foundations of AI

Across

[4] Roughly speaking, a problem is called _____ if the time required to solve instances of the problem grows exponentially with the size of the instances.

[6] _____ is the study of internal mental processes—all of the workings inside your brain, including perception, thinking, memory, attention, language, problem-solving, and learning.

[7] for some games a rational agent should adopt policies that are (or least appear to be) randomized. Unlike decision theory, _____ theory does not offer an unambiguous prescription for selecting actions.

[9] _____ theorem showed that in any formal theory as strong as Peano arithmetic (the elementary theory of natural numbers), there are true statements that are undecidable in the sense that they have no proof within the theory.

[12] _____ theory, which combines probability theory with utility theory, provides a formal and complete framework for decisions (economic or otherwise) made under uncertainty.

[13] Treatise of Human Nature (Hume, 1739) proposed what is now known as the principle of _____ that general rules are acquired by exposure to repeated associations between their elements.

[14] “Nothing is in the understanding, which was not first in the senses”.

[15] Any problem class to which the class of _____ problems can be reduced is likely to be intractable.

Down

[1] _____ is a branch of mathematics and engineering plays a crucial role in managing and regulating systems to provide a framework for designing systems that can maintain a desired output or performance level, even in the presence of disturbances or uncertainties.

[2] _____ is the study of the nervous system, particularly the brain.

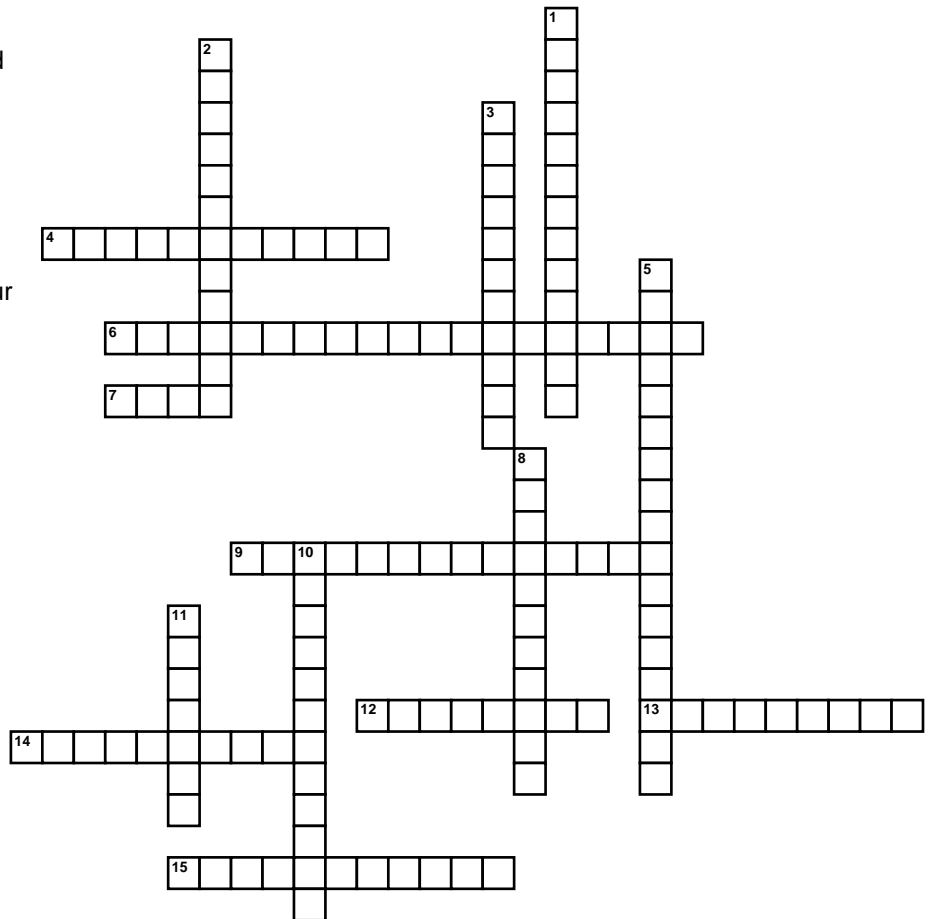
[3] models based on _____—making decisions that are “good enough,” rather than laboriously calculating an optimal decision—gave a better description of actual human behavior.

[5] This doctrine holds that all knowledge can be characterized by logical theories connected, ultimately, to observation sentences that correspond to sensory.

[8] An alternative to dualism is _____, which holds that the brain’s operation according to the laws of physics constitutes the mind.

[10] _____ theory is used to analyze the acquisition of knowledge from experience.

[11] is a part of the human mind (or soul or spirit) that is outside of nature, exempt from physical laws.



Solution

