MENTAL ROTATION

In cognitive psychology and neuroscience, spatial memory is the part of memory responsible for recording information about one's environment and its spatial orientation. For example, a person's spatial memory is required in order to navigate around a familiar city, just as a rat's spatial memory is needed to learn the location of food at the end of a maze. It is often argued that in both humans and animals, spatial memories are summarized as a cognitive map. Spatial memory has representations within working, short-term memory and long-term memory. Research indicates that there are specific areas of the brain associated with spatial memory.

Visuospatial skills are used everyday in many ways, ranging from going from one room to another in your house to solving a jigsaw puzzle and navigating in a new city. One specific visuospatial skill has to do with moving spatial information around in your head. It is called mental rotation. Let’s take an example. Can you picture in your head an arrow pointing to the right? Now, turn this arrow so it points to the left. Done?

You have just performed a mental rotation! People use this ability when they read maps, use tools, play chess, arrange furniture, drive in traffic, etc.

On the next page is a brain exercise to stimulate your mental rotation skill.

For each number, decide whether it is a normal or reversed number (see example below).

Note: NO FLIPS allowed!
Answers

Row 1: normal, reversed, reversed
Row 2: normal, normal, reversed
Row 3: normal, reversed, reversed

Patient correctly identified number as normal or reversed ____ / 9.