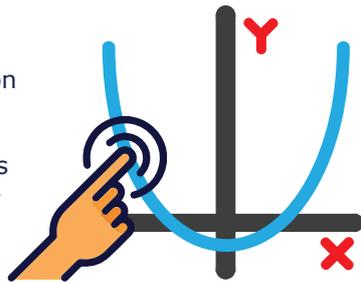


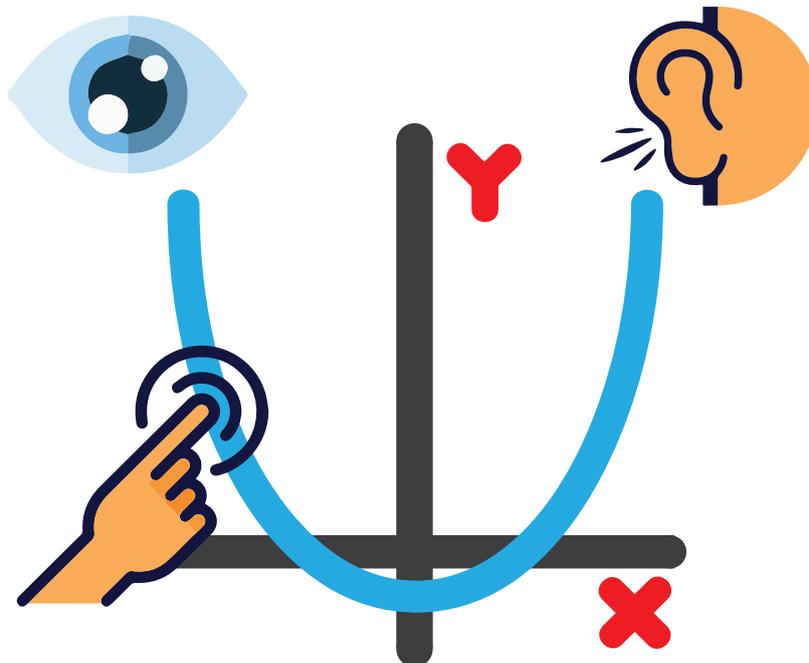
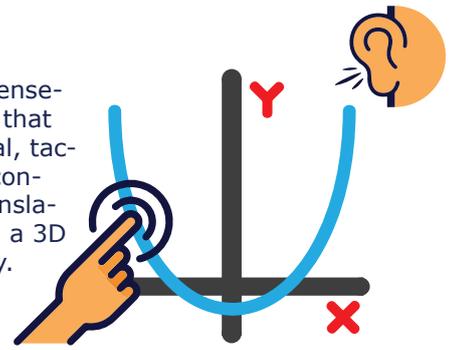
SenseMath making sense of math?!

Does multisensory presentation of mathematical graphs improve visually impaired students' performance on identifying mathematical graphs? A comparison study

It is difficult for blind students to perceive graphs, tables and maps. A common solution is to present this information tactilely, but processing it that way costs much time and energy. Besides that, students aren't able to make the graphs by themselves.



Visio is developing SenseMath. An application that displays graphs visual, tactile and auditory. It consists of a musical translation of 3D sound and a 3D printed tactile display.



Four blind students and four with low vision participated. Participants were asked to perform several tasks, e.g. identifying the type of a graph or localising an intersection on the graph.



- Participants enjoyed using SenseMath.
- The majority of blind participants recognized a graph faster if they worked with SenseMath than without.
- They observed the tactile graph in a different way with SenseMath.
- SenseMath gave participants confidence in the location and the type of graph.

