**DENSITY OF LIQUIDS**

**TASK:** Create your own aerometer (an instrument designed to measure density) and deduce the density of liquids.

**EQUIPMENT:**

* a straw
* playdough
* quartz sand
* various liquids
* measuring cylinder

**Scientific background:** The density, or more precisely, the volumetric mass density, of a substance is its [mass](https://en.wikipedia.org/wiki/Mass) per unit [volume](https://en.wikipedia.org/wiki/Volume). ($d=\frac{m}{v}$).

**Instructions:**

* Take some water and weigh it.
* Take some oil and weigh it.
* At the bottom of the straw, attach some playdough to close it and block air. Then add some quartz sand into it.
* Put the aerometer you have just made into a glass of water and into oil, separately to measure density.
* Put your aerometer into other liquids and tell their density.

**Measurements/results:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | mass (kg) | volume (dm3) | density (kg/dm3) |
| water |  |  |  |
| oil |  |  |  |

Density of 1st liquid:

Density of 2st liquid:

Sort the liquids according to their density:

**Conclusion:** The aerometer sinks deeper into the liquid that has \_\_\_\_\_\_\_\_ (bigger/smaller) density.