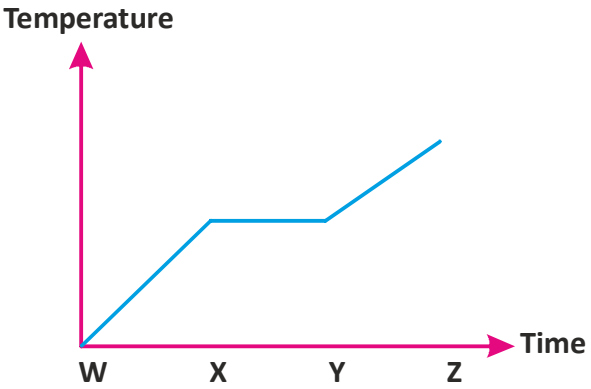
01 A girl melts four cubes of ice in a beaker. She leaves the beaker on a table for a few hours, and then heats it. The graph given below shows the changes undergone by the melted ice.



(a) What is the initial temperature of the water formed by the melting ice ?

(b) What is happening to the water from W to X in the graph ?

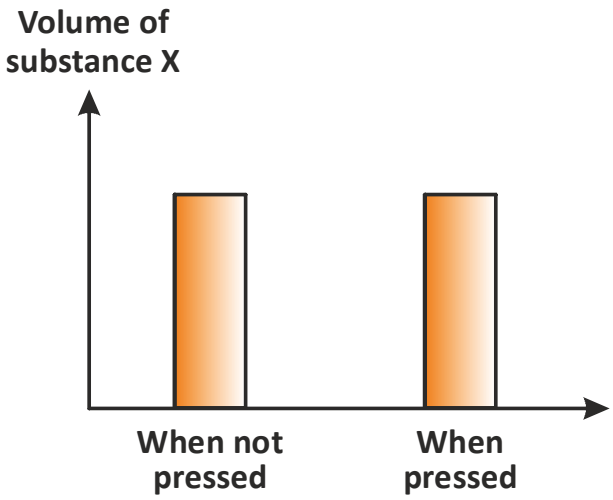
(c) Which of the lines – WX, XY or YZ – best represents room temperature ?

(d) At which point – W, X, Y or Z – did she heat the beaker ?

(e) Does ice gain or lose heat in order to melt ?

Your solution here:

02 Maya took substance X and measured its volume. She then tried to press it and measured its volume again. She plotted the graph given below to show her results.

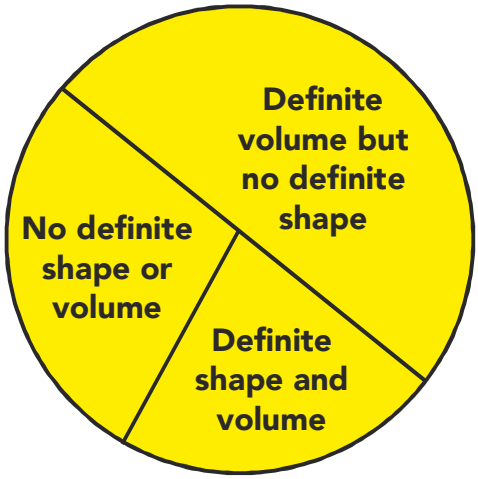


(a) From the given graph, what do you infer about the state of matter that substance X is in ?

(b) Why the volume of substance X remains unchanged when it was pressed ?

Your solution here:

03 A laboratory has 100 beakers containing various substances. The pie chart given below shows some properties of the substances.



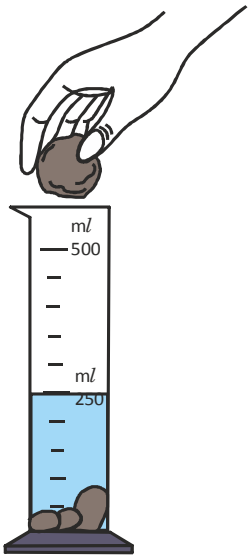
(a) In which state of matter is the group with the least number of substances ?

(b) How many beakers contain liquids ?

(c) How did you arrive at your answer in (b) ?

Your solution here:

04 A student had a measuring cylinder with 200 m*l* of water. He then dropped four pebbles of different sizes. K, L, M and N, into it as shown below. The table given below shows his observations.



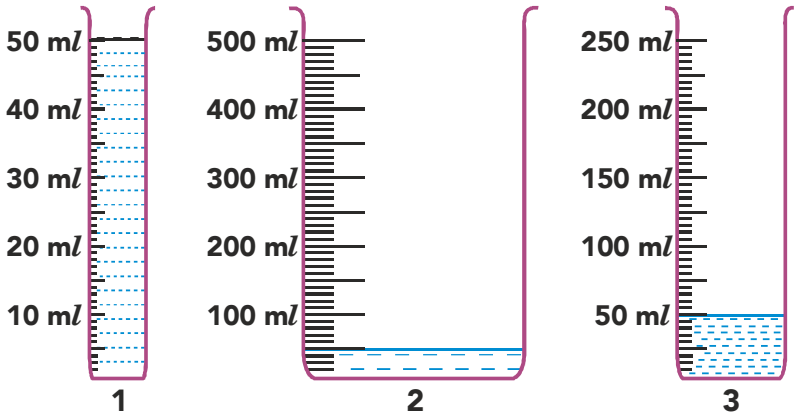
Pebbles in the water	Reading on the measuring cylinder
K	210 m*l*
K + L	220 m*l*
K + L + M	250 m*l*
K + L + M + N	300 m*l*

(a) Calculate the volumes of pebbles L and N.

(b) The pebbles and water are matter because they have _____ and occupy _____.

Your solution here:

05 Three measuring cylinders of different sizes are filled with 50 m*l* of boiling water.



(a) Arrange the rate of evaporation of water in the three measuring cylinders from the highest to the lowest.

(b) Which factor affects the rate of evaporation in this experiment ?

(c) Which factor will increase the rate of evaporation in the measuring cylinders ?

Your solution here: