

Name: \_\_\_\_\_

Pd: \_\_\_\_\_ Seat: \_\_\_\_\_

Date: \_\_\_\_\_

## Creating Bar Graphs

**Directions:** Read the background information for the table below. Analyze the data table. Answer the questions that follow in complete sentences using the table and background information.

The table below shows the relative diameters of the planets in our solar system in Earth units. That means that Earth is represented as having a diameter of 1 Earth unit. The planet Uranus, which has a diameter that is four times the size of Earth's diameter, is represented by 4 Earth units. The planets are listed in order of their distance from the sun. Mercury is the closest, and Pluto is the farthest away.

Diameters of the Planets in Earth Units	
Planet	Diameter in Earth Units
Mercury	0.40
Venus	0.95
Earth	1.00
Mars	0.50
Jupiter	11.20
Saturn	9.50
Uranus	4.00
Neptune	3.90
Pluto	0.20

1. When making a graph of this information, on which axis would you place the names of the planets?

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2. Notice that the measurements you need to represent include some numbers between 0 and 1, with the largest number between 11 and 12. What scale will you use to represent the planet diameter? How did you decide on this scale?

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3. What units will you put next to the label on the y-axis of this graph?

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4. On the graph paper attached, make a bar graph that displays the data in the table.



# Creating Line Graphs

The following is a set of data collected from a class testing the temperature of an unknown substance over time.

Time vs. Temperature for Unknown Substance		
Time (min)	Temperature (°C)	Solid, Liquid or Gas
0	-20	Solid
5	0	Solid (melting)
10	0	Solid (melting)
15	52	Liquid
20	100	Liquid (boiling)
25	100	Liquid (boiling)
30	100	Liquid (boiling)
35	100	Liquid (boiling)
40	100	Liquid (boiling)
45	100	Liquid (boiling)
50	100	Liquid (boiling)
55	100	Liquid (boiling)
60	100	Liquid (boiling)
65	100	Liquid (boiling)
70	100	Liquid (boiling)
75	110	Gas
80	120	Gas

1. Looking at the second column of the data table, describe what happens to the temperature of the substance over time?

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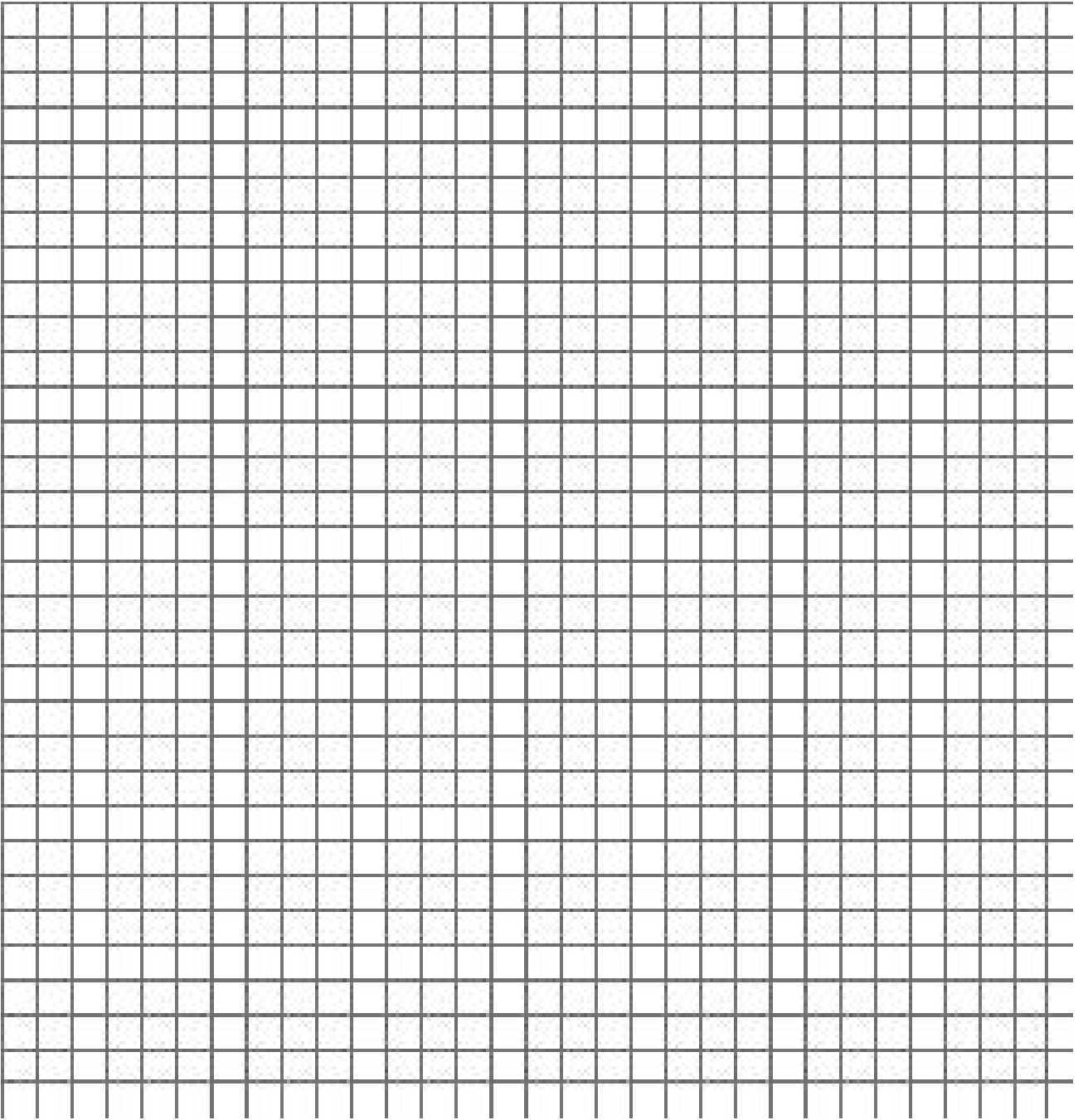
2. Looking at the third column of the data table, describe what happens physically to the substance over time.

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3. On the graph paper below, make a line graph of the data collected (**YOU ARE ONLY LOOKING AT THE FIRST TWO COLUMNS, NOT THE THIRD**)



4. Does the shape of your line graph match your description from question 1 of what was happening to the temperature of the substance over time? Explain.

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