

EXCEL Chemistry
Graphing Assignment 1
Due Monday, September 21, 2020

1. Temperatures recorded in °F for 10 days. Complete a line graph. Do not connect the dots. Must include the following: Title of the graph, label the x-axis, label the y-axis, units on the x- and y- axis, and include the best fit line (NO connecting the dots).

Temperature in Oklahoma City	
Day	Temperature
1	43.0°F
2	45.2°F
3	47.4°F
4	51.3°F
5	57.8°F
6	61.9°F
7	68.2°F
8	73.4°F
9	79.8°F
10	83.5°F

2. Sarah bought a small car for \$24,000. The dollar value of her car changed each year shown below. Complete a line graph. Do not connect the dots. Must include the following: Title of the graph, label the x-axis, label the y-axis, units on the x- and y-axis, and include the best fit line (NO connecting the dots).

Value of Sarah's Car	
Year	Value
2010	\$24,000
2011	\$22,500
2012	\$19,700
2013	\$17,500
2014	\$14,500
2015	\$10,000
2016	\$5,800

3. The table below shows Sam's weight in kilograms over a 6 month period. Complete a line graph. Do not connect the dots. Must include the following: Title of the graph, label the x-axis, label the y-axis, units on the x- and y- axis, and include the best fit line (NO connecting the dots).

Sam's Weight	
Month	Weight
January	49
February	54
March	58
April	61
May	67
June	70

4. A survey of student's favorite after-school activities was conducted at a school. The table below shows the results of this survey. Construct a bar graph.

Student's Favorite After School Activities	
Activity	Number of Students
Play Sports	45
Talk on Phone	53
Visit with Friends	99
Earn Money	44
Chat Online	66
School Clubs	22
Watch TV	37

A **bar graph** is useful for comparing facts. The bars provide a visual display for comparing quantities in different categories. Bar graphs help us to see relationships quickly. Another name for a bar graph is a bar chart. Each part of a bar graph has a purpose.

Title - the title tells us what the graph is about.

Labels - the labels tell us what kinds of facts are listed.

Bars - the bars show the facts.

Grid lines - grid lines are used to create the scale

Categories - each bar shows a quantity for a particular category.

Questions:

1. What is the title of this bar graph?
2. What is the range of values on the x-axis?
3. How many categories are there?
4. Which after school activity do students like most?
5. Which after school activity do students like least?
6. How many students like to talk on the phone?
7. How many students like to earn money?
8. Which two activities are like almost equally?
9. List the categories in the graph from greatest to least.

5. Students in a class voted on their favorite fruit. Each student voted once. The bar graph below summarizes the data collected from the class vote.

Student Votes for Fruit	
Fruit	Number of Students
Apples	5
Grapes	3
Bananas	2
Oranges	4
Pears	1
Strawberries	4

Construct a bar graph.

6. The amount of sugar in 7 different foods was measured as a percent.

Amount of Sugar in Food	
Food	Percent
Ketchup	8.8
Peanut Butter	9.2
Ice Cream	21.4
Chocolate Bar	33.2
Chocolate Cake	30.3
Soda	28.9
Crackers	11.8

Construct a bar graph.

7. At a private school, 300 students and faculty voted on adopting uniforms for students. The results are shown in the table below. Display the results of this vote in a circle graph.

Adopt Student Uniforms	
Yes	30
No	180
Not Sure	90

In order to draw a circle graph, we need to represent the number for each response as a percent. Determine the percent of yes, no, and not sure responses.

A **circle graph** shows how the parts of something relate to the whole. A circle graph is divided into sectors, where each sector represents a particular category. The entire circle is 1 whole or 100%, and a sector of the circle is a part. Let's define the various regions of a circle graph.

Title - the title tells us what the graph is about

Sectors - the sectors of the circle graph show what percentage of the whole is being represented by each category.

Labels - the labels identify the facts for each category.

8. A poll was taken to find the music preferences of students at Adams School. Each student voted only once. The results of this poll are displayed in the table below. Construct a pie graph.

Music Preference of Students	
Country	12%
Classical	10%
Alternative	15%
Rap	35%
Rock and Roll	28%

9. Students in Ms. Green's film class voted for their favorite movie genre. Each student voted only once. The results of this vote are displayed in the circle graph below. Construct a pie graph.

Music Preference of Students	
Science Fiction	14%
Horror	20%
Comedy	37%
Action	29%