

# Canvas Submission Practice Assignment

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

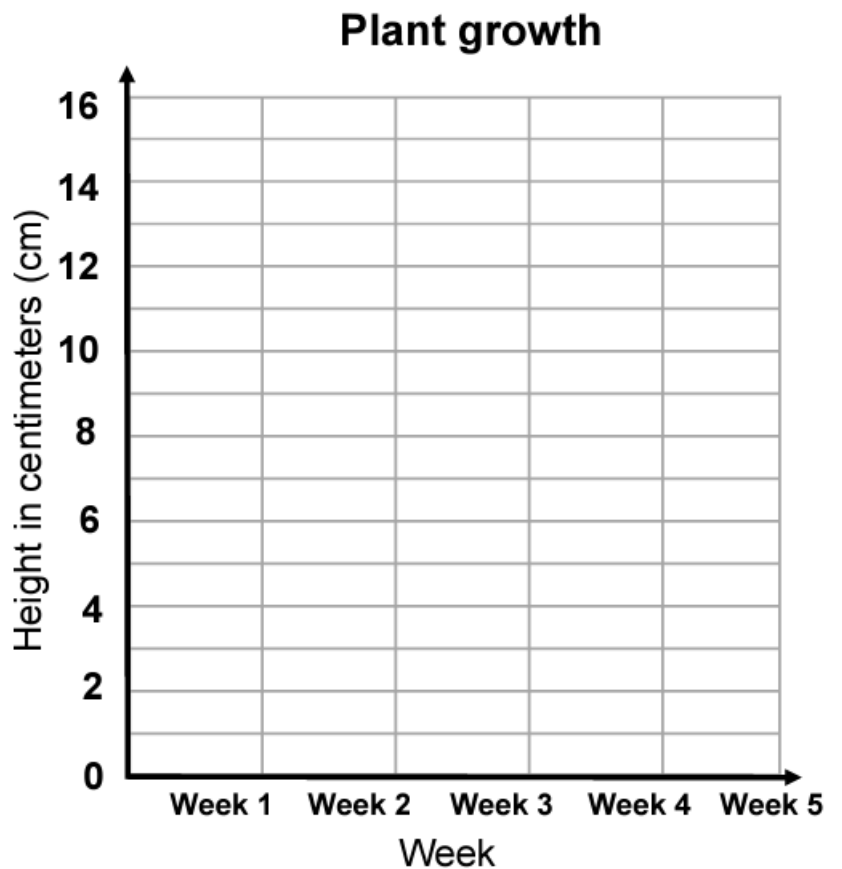
## Recommending a Restaurant

Write a brief recommendation for a restaurant in the Ventura/Oxnard area. Include details about the cuisine, ambiance, and why you recommend it. You can handwrite, type, or digitally write in the provided box below.

## Plant Growth Line Graph

Emma measured her plant's growth for five weeks. Draw a line graph using the data

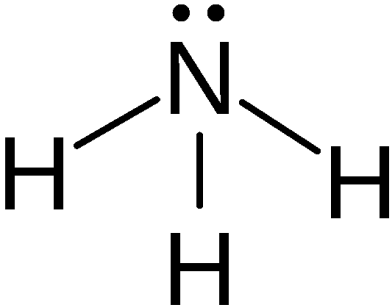
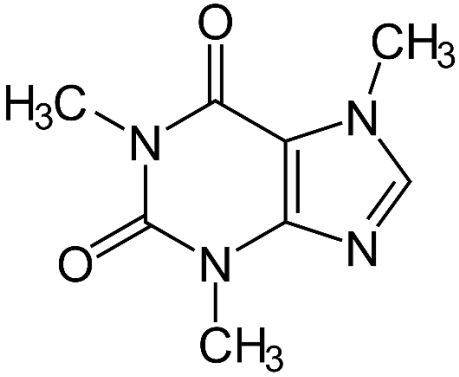
Week	Height (cm)
Week 1	2
Week 2	5
Week 3	8
Week 4	11
Week 5	14



## Drawing Molecular (Lewis) Structure

In this part of the assignment, you will be practicing your skills in drawing Lewis structures. Lewis structures are a key component in understanding molecular geometry and chemical bonding. For this task, two different molecular structures will be provided to you. Your job is to carefully redraw these structures.

You can either print out the file and hand-draw the structures or use a digital tool to draw them directly on the file. Please note that **typing out the structures is not permitted**, as the goal is to practice drawing them manually or with a stylus.

Structure	Your Drawing
 <p>The image shows the Lewis structure of ammonia (NH<sub>3</sub>). A central nitrogen atom (N) has one lone pair of electrons represented by two dots above it. It is bonded to three hydrogen atoms (H) via single lines: one to the left, one to the right, and one below.</p>	
 <p>The image shows the chemical structure of caffeine (1,3,7-trimethylxanthine). It consists of a fused pyrimidine-imidazole ring system. The pyrimidine ring has two carbonyl groups (C=O) and two methyl groups (CH<sub>3</sub>) attached to its nitrogen atoms. The imidazole ring has one methyl group (CH<sub>3</sub>) attached to its nitrogen atom.</p>	

### Practicing "Showing Work"

Copy the following process of derivation of Arrhenius equation in the provided box below. Please note that **typing out the work is not permitted**, as the goal is to practice writing them manually or with a stylus.

$$k = Ae^{-E_a/RT}$$

$$\begin{aligned}\ln k &= \ln\left(Ae^{-E_a/RT}\right) \\ &= \ln A + \ln\left(e^{-E_a/RT}\right) \\ &= \left(\frac{-E_a}{R}\right) \left(\frac{1}{T}\right) + \ln A\end{aligned}$$

$$\ln k = \ln A - \frac{E_a}{RT}$$