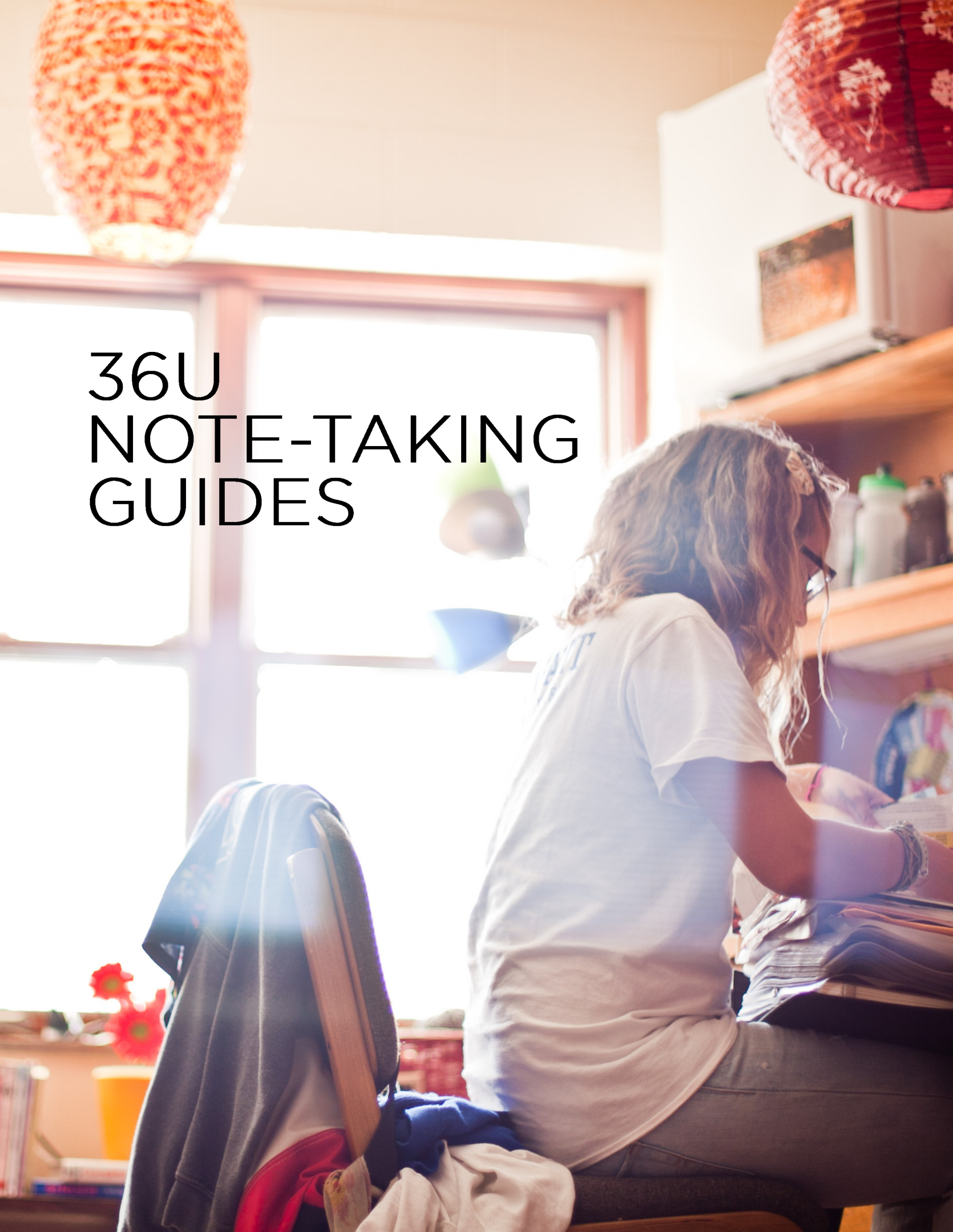
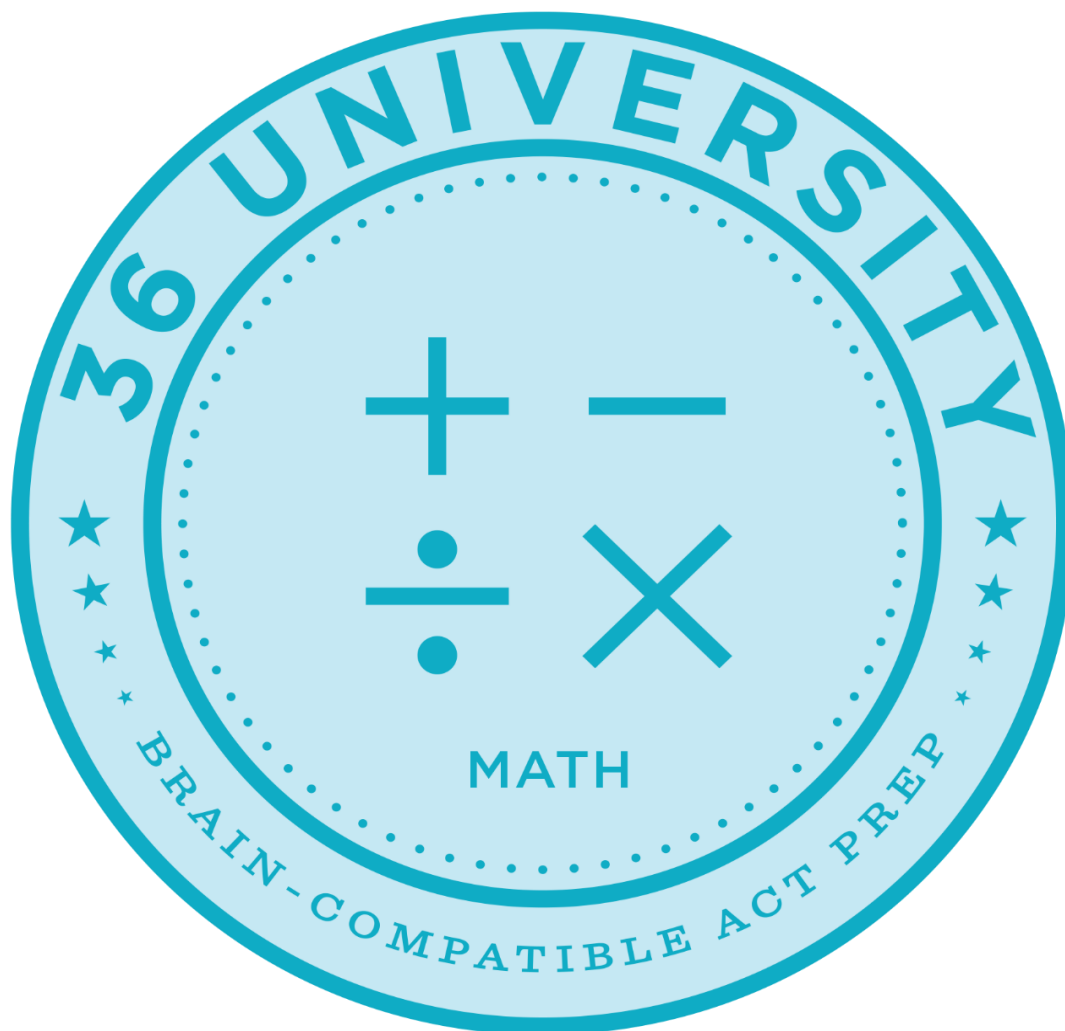


36U NOTE-TAKING GUIDES





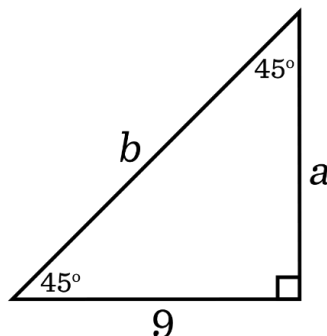
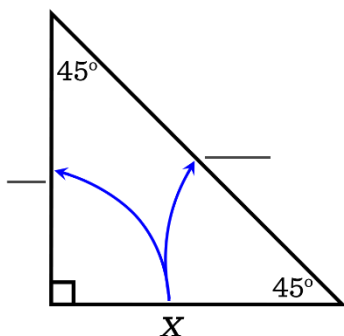
45°-45°-90° & 30°-60°-90° TRIANGLES

Frequency: ★

Save time when working with right triangles by memorizing the ratios between sides in 45-45-90 and 30-60-90 triangles.

I. 45°-45°-90° Triangles

The ratios between sides in a 45°-45°-90° triangle are _____.

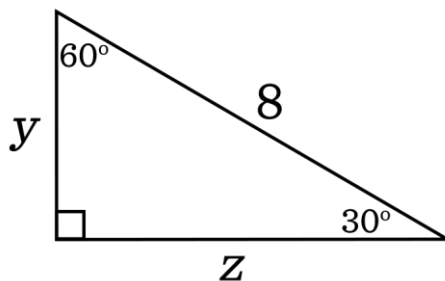
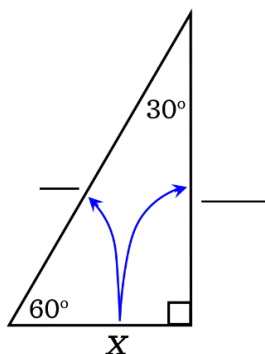


$a = \underline{\hspace{2cm}}$

$b = \underline{\hspace{2cm}}$

II. 30°-60°-90° Triangles

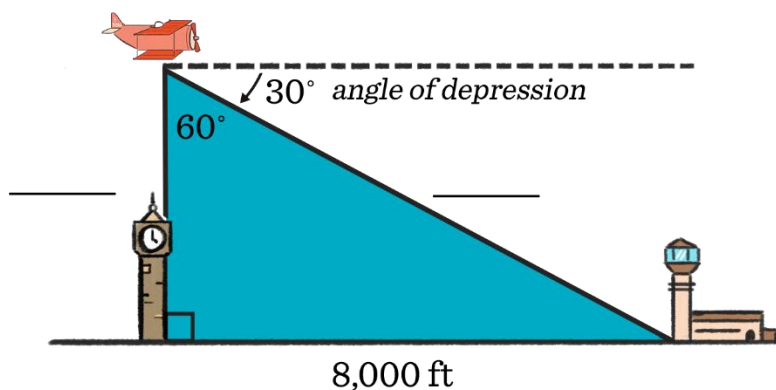
The ratios between sides in a 30°-60°-90° triangle are _____.



$y = \underline{\hspace{2cm}}$

$z = \underline{\hspace{2cm}}$

HOW WILL THIS LOOK ON THE ACT?



PROBABILITY

Frequency: ★★★★★

If all outcomes are equally likely,...

Probability of event $A =$ _____

I. Simple Probability

Diana rolls two dice. What is the probability she rolls a sum of 5?

Possible Outcomes:



1,1 1,2 1,3 1,4 1,5 1,6

2,1 2,2 2,3 2,4 2,5 2,6

3,1 3,2 3,3 3,4 3,5 3,6

4,1 4,2 4,3 4,4 4,5 4,6

5,1 5,2 5,3 5,4 5,5 5,6

6,1 6,2 6,3 6,4 6,5 6,6

How many outcomes have a sum of 5?



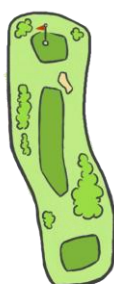
$P(\text{sum of } 5) =$

II. Probability of Multiple Events

Based on past performances, what is the probability Victor birdies both holes 17 and 18?



HOLE 17

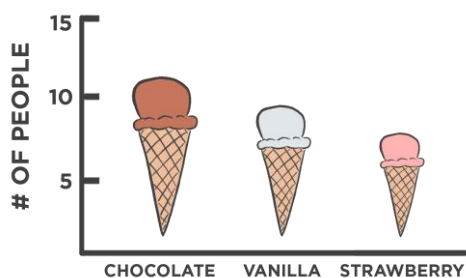


HOLE 18



$P(\text{birdie on both holes}) =$

HOW WILL THIS LOOK ON THE ACT?



$P(\text{vanilla or chocolate}) =$



MISPLACED MODIFIERS

Frequency: ★★

I. Logical Placement

Just as adjectives are placed right beside the nouns they describe, other modifiers are also best placed _____ they are describing.



INCORRECT: The tourists snapped pictures of the large rhino in the jeep.

CORRECT: The tourists _____ snapped pictures of the large rhino.

II. Dangling Modifiers

When sentences begin with a description, be careful not to leave a _____
 _____. Identify the _____ immediately after the introduction.



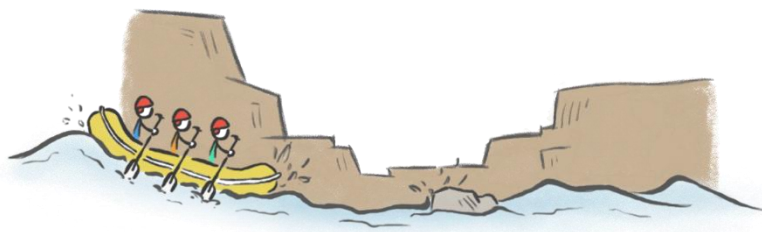
INCORRECT: Floating in the river, the zebra watched for crocodiles.

CORRECT: Floating in the river, _____ watched for prey.

PRONOUN-ANTECEDENT AGREEMENT

Frequency Rating: ★★ ★

Pronouns must agree with their _____, just like verbs must agree with their subjects!



Rafting the Colorado River is fun. _____ swift water makes for quite an adventure.

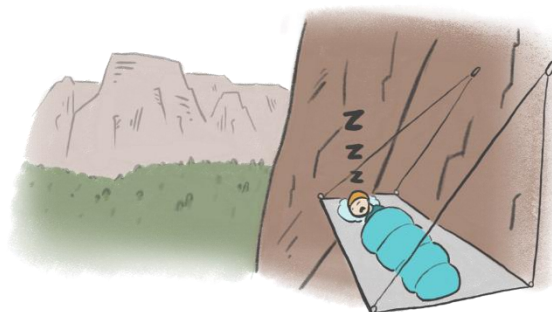
Keep in mind these three key differentiators when determining pronoun-antecedent agreement...

I. Is the Antecedent _____ or _____?

My friends enjoy hang gliding. _____ have spent years honing their skills.

II. Is the Antecedent a _____ or an _____?

Yosemite's El Capitan is a mecca for rock
climbers, _____
sleep on its steep face during the long ascent.



(Be careful to refer to people as a _____, not a *which* or a *that*!)

III. Should the Pronoun be _____?

Louise enjoys climbing, but rappelling is _____ favorite.



INFERENCE ITEMS

Frequency per passage: ★★ ★

Inference items are slightly more difficult than the “direct from text” items because the correct answer choice will be _____, but not stated explicitly.

I. What Do These Items Look Like?

The passage most strongly _____ ...

It can reasonably be _____ ...

The character would most _____
with...



II. How to Handle These Items

Inference items require you to understand what is _____ in the text, but isn't stated explicitly. The text will have built a case for one of the given answers.

If needed, _____ the specified text to identify the supported conclusion.

DOUBLE PASSAGES

Frequency: 1 passage

Expect one of the four reading sets to have _____ instead of one larger passage.

I. Dealing with the Passages Separately

The questions accompanying the texts will be divided into _____ sets.

The first set will ask questions about the _____; the second set will ask questions about the _____, and the third set of questions will ask you about _____ between the passages.

You may want to read the _____ and answer the first set of questions before reading the second passage and answering the second and third question sets.



II. Connections Between the Passages

The last set of questions consists of a few items that will ask you to synthesize information from both texts.

Look for the _____ between the passages...

Do the texts have the same _____? If so, expect to be asked about the _____ displayed in the texts.

Do the passages cover the _____?

Is there a _____ that appears in both passages?



DATA IN DIFFERENT FORMS

Frequency: ★★

Data can be displayed in many different forms like _____, _____, and _____.

You need to be able to match data from tables with their corresponding graphs...

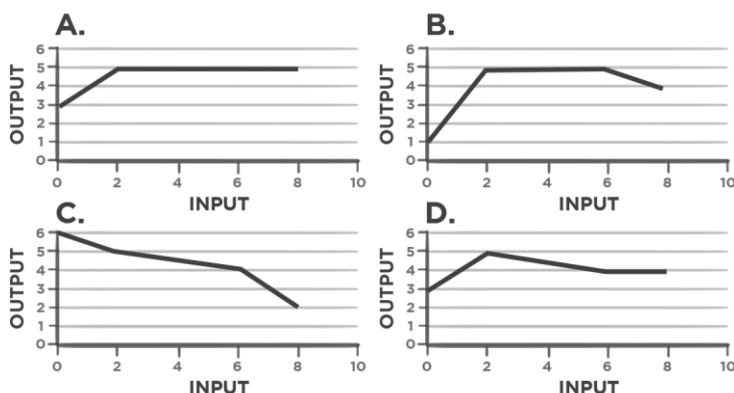
I. From Table to Points to Graph

Match the data from the following table with the corresponding graph.

Step 1: Recognize the values as _____.

Step 2: Plot the ordered pairs to _____ graphs that don't match the data.

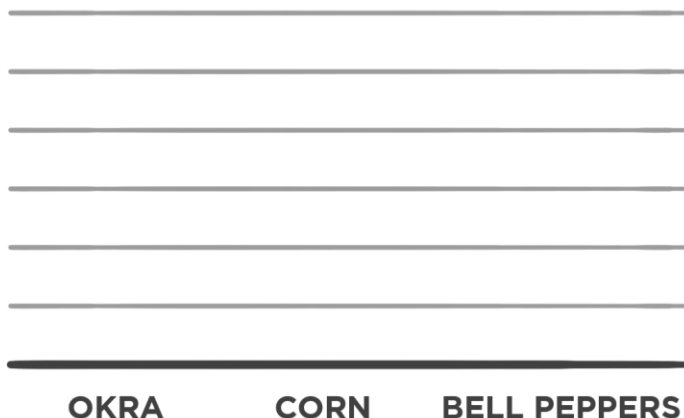
INPUT	OUTPUT
0	3
2	5
6	5
8	5



II. From Categorical Data to Bar Graphs

Practice making a bar graph from the categorical data.

VEGGIE	HARVEST (lbs.)
OKRA	15
CORN	75
BELL PEPPERS	22



MULTIPLE Y-AXES

Frequency: ★★

Often, one set of input values is paired with more than one set of _____
 _____.

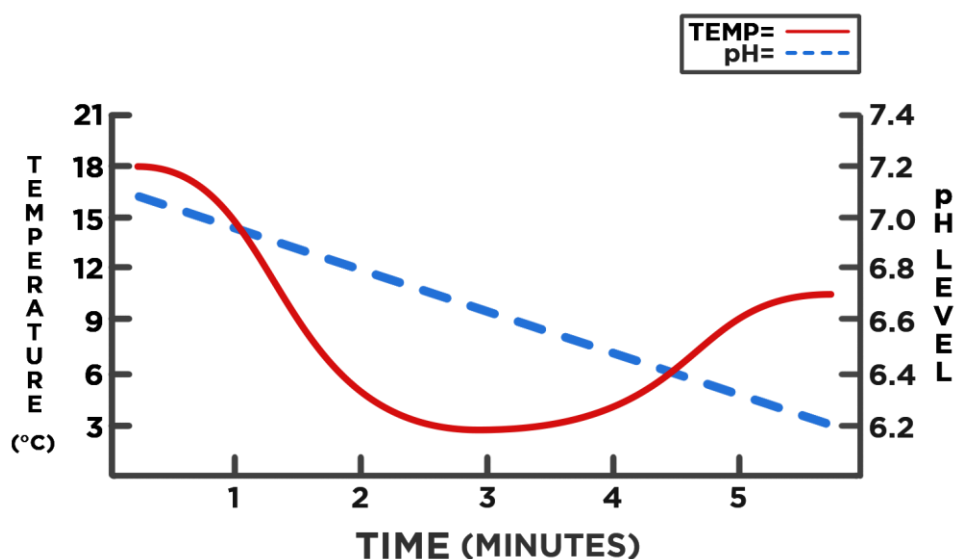
Instead of making separate graphs for each of those sets of outputs, it is often more efficient to plot the data on the same graph and use _____.

How Should You Handle Multiple Y-Axes Graphs?

Step 1: Utilize the Key

Use the key to match the graphs with their _____.

Step 2: Read Data Values



Can you find the pH reading at the two-minute mark? (Draw in arrows to find the pH value!)

At the 2-minute mark, the pH reads _____.

The temperature was 6 degrees Celsius at what time(s)?

The temperature was 6°C between _____ and _____ minutes and between _____ and _____ minutes.