



MARCH 16-20, 2020

TOPIC: COLLABORATIVE AND TEAM CONTENT DEVELOPMENT

- Building a web site requires addressing different aspects covering the product.
- Some of these aspects include the coming up with layout, realizing the design, marketing the web site, and managing the integration of all the aspects in one project. The amount of work and tasks to be done in developing a web site is maybe much for one individual.
- Splitting the work into different individuals in a team introduces different advantages in software and online development and can focus on one task.
- Another advantage of the system is it introduces parallelism, or develops all of the aspects of the web site at the same time which will be integrated later, however doing this system also has certain disadvantages, because individuals are doing tasks independently with other individuals, the output of the individual tends to overlap with the output of the individuals.

Presented here are the roles that the Web development team essentially requires.

- **Project manager** – is the leader of the group.
 - The project is synchronized and supervised by the project manager.
 - Upon the commencement of the project, the project manager sets the goals and expectations for each individual involve in the project.
 - The one who set realistic deadlines for each individual, keeping in mind the actual deadline of the project.
 - It also the responsibility of the project manager to ensure constant communication with every individual of the team, checking the hurdles and issues that they might encounter.
- **Web Strategist** – plans the approach or method to be done.
 - He or she plan every step that the team should do in phases or stages of development.
 - The goals the project manager sets are determined by the web strategist.
 - The structure and arrangement of the web site is defined and planned carefully by the web strategist.
- **Content specialist** – most of the time, the developers are not inclined in the field of the Web sites topic.
 - The team therefore needs an individual with expertise to write the content of the web site.
 - Sometimes the content specialist is an experienced artier and has knowledge on how to catch the attention of readers.
- **Web designer** – is the one to charge of the visual representation of the web site.
 - The goal of the web designer is to catch the attention of the target audience using attractive visual design and layout.
 - The web designer is a specialist in stringing colors and shapes that can bring imagination of viewers to life.
- **Developer** – the developer’s tasks into account all of the outputs of the content specialist and web designer.
 - Essentially, the developer will make the web site come to life with the pointers given by the web designer and content specialist.

- Is a programmer who creates a program that, if allowed to run, will execute the web site as planned.
 - Assures the program will run and perform the expected functions of each component.
- **Inbound Marketer** – the success of the web site or the popularity will be responsibility of the inbound marketer.
- Most of the time, the inbound marketer uses different strategies such as blogs, social media, advertisements to promote web site.
 - The collaboration between the content specialist and the inbound marketer is important to promote the web site.

Project Management

- Is the individual who carries out the methods of project management.
- By definition, project management for ICT is the set of skills or abilities to complete an ICT project and produce an output.
- The basic skills to learn in project management include project planning, team organization, team motivating, resources control, and administration.
- Project management primarily controls all the factors involved in the project and focuses them to produce favorable goals.

Web Analytics

- Is the process of collecting data or measuring the activity of the web site.
- Upon the creation of a web site, there are factors that the designer would want to study to fully evaluate its effectiveness.
- Web site data includes web traffic, or the number of persons accessing and viewing the web site.
- Other web sites can offer download of files, monetary and business transactions, chat, messaging systems.
- Accessing these systems can contribute to the data traffic or can be considered as part of analytics.
- The measure of the number of downloads, the number of uploads, the number of transactions can be measured, and may thus help to further improve the web site.

Platforms for Collaboration

Google Apps for Work

This is a compilation of productivity tools developed by Google. This platform is online and also contains a word processor, a spreadsheet, and the presentation program.

Google Docs – is the word processing platform.

Google Sheets – is the spreadsheet platform.

Google Slides – is the presentation platform.

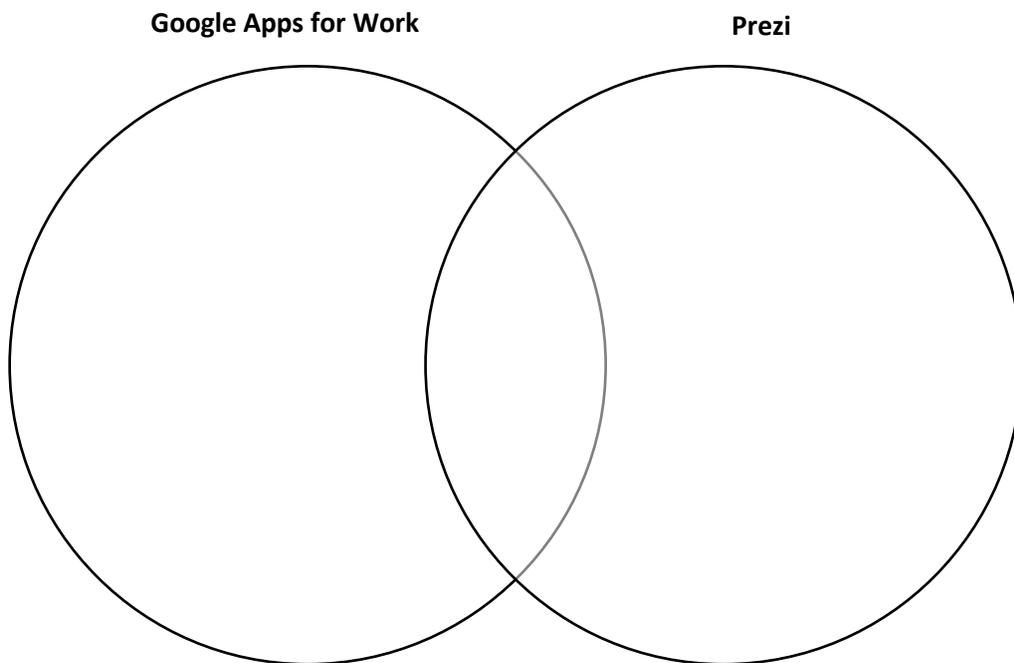
TO DO LIST

Directions: Identify the roles of each member of a Web development team. (12 points)

Web Development Team	Role
Project manager	
Web strategist	
Content specialist	
Web designer	
Developer	
Inbound marketer	

B. UNDERSTANDING

Directions: Using the Venn Diagram compare and contrast Google Apps for Work and Prezi as a platform for ICT collaboration. (6 points)





MARCH 16-20, 2020

TOPIC: THE DISCIPLINE OF SOCIAL WORK

SUB-TOPIC: PROFESSIONALS AND PRACTITIONERS IN SOCIAL WORK

I. Roles, Functions, and Competencies of Social workers

A. ROLES of SOCIAL WORKERS

- Social workers have the following roles: broker, counselor/clinician, advocate, teacher/educator, case manager, mobilizer, mediator, and facilitator. (Sheafor and Horejsi 2003).
- Social workers also perform the following roles: enabler, activist, negotiator, initiator, empower, coordinator, researcher, and public speaker. (Zastrow 2008)

B. COMPETENCIES of SOCIAL WORKERS

- Conduct oneself as befitting of a professional social worker.
- Apply critical thinking to inform and communicate professional judgments.
- Practice engagement, assessment, intervention, and evaluation at multiple levels-with individuals, families, groups, and communities to achieve client goals.

C. CAREER OPPORTUNITIES FOR SOCIAL WORKERS

- Substance Misuse and Addictions
- Social Work in Aging and Gerontology
- Child and Family Social Work
- Healthcare Social Work

II. What to Do:

- a. If you were a social worker, what would you do with the scenario today about the COVID-19?
(ESSAY: 1 whole sheet yellow pad paper)
- b. Make a LOGO and SLOGAN that would reflect your experience regarding the situation today. "The COVID-19." Give a positive approach.
(1 short bond paper: half logo upper part and half slogan lower part portrait)
- c. Do you see yourself as a social worker in the future? Explain. Choose any career opportunities above the given career.
(ESSAY: 1 whole sheet yellow pad paper)



MARCH 16-20

TOPIC: PREPARED SEAFOOD DISHES

SEAFOOD DISHES or FISH

These are distinct food dishes which use seafood (fish, shellfish or seaweed) as primary ingredients, and ready to be serve or eaten with needed preparation or cooking completed. A cuisine is primarily influenced by the ingredients that are available locally or through trade.

SAMPLE RECIPE

GARLIC BUTTERED SHRIMP

Start by cleaning the shrimp. Wash it thoroughly and cut the antennae as much as possible. Devein each piece and wash again until clean.

Marinate it in lemon soda. Do this by arranging the shrimp in a bowl and pour lemon soda. Let it sit around 10 minutes before cooking.

GARLIC BUTTER SAUCE

This is mainly composed of butter and garlic as the name suggests. It is more of a preparation rather than a sauce at first. Sauces are usually cooked separately. It can be added anytime to a dish, but as a completely entity. The sauce for our garlic shrimp is assembled as the dish cooks.

INGREDIENTS

- 2 lbs. shrimp (cleaned)
- 2 T parsley chopped
- ¼ cup butter
- 1 head garlic minced
- 1 cup lemon lime soda
- 1 t lemon juice
- Salt and pepper to taste

PROCEDURE

1. Marinate the shrimp in lemon soda for about 10 minutes
2. Melt the butter in a pan
3. Add garlic. Cook in low heat until the color turns light brown
4. Put in the shrimp. Adjust heat to high. Stir fry until shrimp turns orange.
5. Season with ground black pepper, salt and lemon juice. Stir.
6. Add parsley. Cook for 30 seconds.
7. Serve hot with presentation. Share and Enjoy!

ACTIVITY

Instructions: Create a Video on How to make “GARLIC BUTTERED SHRIMP”.

1. Follow the ingredients and procedure given.
2. Mis-en place preparation
3. Observe the proper way of handling food.
4. Presenting the food with appropriate garnishes.



MARCH 16-20, 2020

TOPIC: LEARNING FROM OTHERS AND REVIEWING THE LITERATURE

- Purpose and Elements of the Review of Related Literature
- Identify Related Literature

Purpose of the Review of Related Literature

The literature review summarizes and synthesizes what has been discovered about your research problem (Merriam, 1988,61; Taylor,2016; The Writing Center at UNC Chapel Hill, 2014). It serves several purposes.

➤ **Familiarize the researcher with the topic under study**

Looking into what has been written about your research topic will inform you how other people understand it, and what definitions, meanings, and interpretations are associated it.

➤ **Allows the researcher to frame the problem within the existing knowledge base**

The literature review will also allow you to look into what other investigations discovered about the topic, what their findings and conclusions are. You will also discover similar and different views.

➤ **Provide opportunity to benchmark on the studies of other scholars**

In reading what others have done about the research problem, you can compare how your own research fared in terms of methodological approach, findings, and theories uncovered. You can get insights on how they entered their research sites, collected data, and analyzed them.

Types and Elements of the Literature Review

You will encounter various types of information when doing your literature review (Merriam 1988)

1. Integrative review – It summarizes past research
2. Theoretical reviews – It is focus on relevant theories
3. Methodological reviews – Concentrate on research methods and definitions.

Literature is dispersed all throughout the research paper. However, as a separate chapter, the literature review is usually organized this way:

- Discussion of literature on the phenomenon being studied
- Discussion of previous studies done on the topic, their methods and main findings
- Discussion on relevant theories about the topic
- Synthesis of the literature review and critical issues in the current existing body knowledge

Identify Related Literature

A well-written literature review reads like a “dialogue” with other investigators and with yourself. It shows the connectedness of various aspects of the research problem, reveals possible limitations of existing studies, raises questions, present alternative interpretations, and comes to a conclusion on the need for the research problem to be explored more deeply.

Steps in Conducting the Literature Review

Adapted from Creswell (2014,31-32) steps below present a method for accomplishing the literature review:

1. Identify keywords or main ideas from your research topic or from your initial reading of related materials on the topic.
2. Search for possible reference materials from a library at your school, city, or nearby college or university using the keywords you have identified.
3. Come up with a list of related books or articles about your research topic. Creswell (2014, 32) recommends prioritizing books and journal articles as they are accessible.
4. Skim through these reference materials. Evaluate how relevant they are in addressing your research problem.

5. Critically review the articles and books that you think will help you understand the phenomenon you are studying. You may write summaries of the most relevant articles.
6. Organize your literature review. Connect key ideas and structure relevant concepts thematically.
7. Write the review of related literature section of your research. Utilize various strategies to avoid plagiarism.

Below is the table of contents of the review of related literature from Uson (2012). The title of his master’s thesis is “Electronic Waste Management in the Philippines: Determining a Sustainable Policy Framework.”

2.0 Review of Related Literature	20
2.1 Defining E-waste.....	21
2.2 E-wastes Statistics.....	26
2.3 E-waste Management.....	30
2.4 Health and Environment Hazards.....	36
2.5 Effect of E-waste Accumulation.....	38
2.6 Relevant Philippine Laws in the Management of E-waste.....	42
2.7 Philippine International Commitments.....	46
2.8 Electronic Waste Management Measures.....	49

Activity

After reading about the purpose, types, and elements of the review of related literature, explain in your own words the importance of this step in your research. Write your ideas in one whole sheet of pad paper.



LA IMMACULADA CONCEPCION SCHOOL

SENIOR HIGH SCHOOL

GRADE 11 – CORE : PHYSICAL SCIENCE

TOPIC: EXAMINING COMMON CONSUMER PRODUCTS

MARCH 16-29, 2020

RUBRICS IN PRODUCT MAKING

- I. Title: The title must be evident and there is an innovation.
- II. Description: What innovation you want to pursue (e.g sanitizer, soap, bleach)
- III. materials
 1. Main component
 2. Chemicals you used in your product (if any)
 3. Equipment's used
 4. Other materials
- IV. Procedure
- V. Documentation
- VI. Recommendations and Conclusion



Topic: 21st Century Filipino Literature - Cogito Ergo Sum By Queena N. Lee-Chua
MARCH 16-20, 2020

Directions: In connection of the story Cogito Ergo Sum or What I Know for Sure I Learned from Mathematics by Queena N. Lee-Chua, answer the following questions in three meaningful sentences.

1. What do you think is the relevance of Math subject in our life?

2. Who is your most favorite Math teacher? Why did you admire him/her?

3. Give any specific thing that you learned in Math that someone has taught you.

4. Do you think the teacher is a factor in learning any lesson/subject such as Math? Why or why not?

5. Give any experiences in any subject that technology was used as an aid in learning.

6. Give any unforgettable experience related to Mathematics.



MARCH 16-20, 2020

TOPIC: ACADEMIC WRITING

Book Review

- It is a literary criticism which gives the readers a heads up about a certain book without spoiling its story. It is also known as **Article Critique**.
- it is a critical assessment of a book based on key points like content, style, plot, author, quality, etc. it is not a mere summary but a commentary, because you are allowed to evaluate and to judge an author's work. In a book review, you are free to agree or disagree with the author or the readers.
- As a book reviewer, you give the readers a sneak peak or idea what the book is like, without revealing plot twists to the readers. Its length may vary from 500 to 700 words, but may be shorter or longer.
- A book review should not be confused with a book report. A book reports commonly describes what happens in a work and focuses on the major plot, characters and main idea of a book.

Below is a comparison of a book review from a book report (privatewriting.com)

Book Review	Book Report
Requires a great intellectual effort.	Simple
Contains a thorough analysis, a reviewer needs to: <ul style="list-style-type: none">• Examine the book's contents• Understand the plot• Grasp the main message of a book• Determine weak and strong sides of a book• Share his personal opinion about the book	Identifies to a book summary
Is about 250-1,000 words or more.	200-250 words
College level assignment or higher.	Sums up the book plot and major themes Narrates or retells the story Considered a K-12 level assignment

PARTS OF A BOOK REVIEW

1. INTRODUCTION

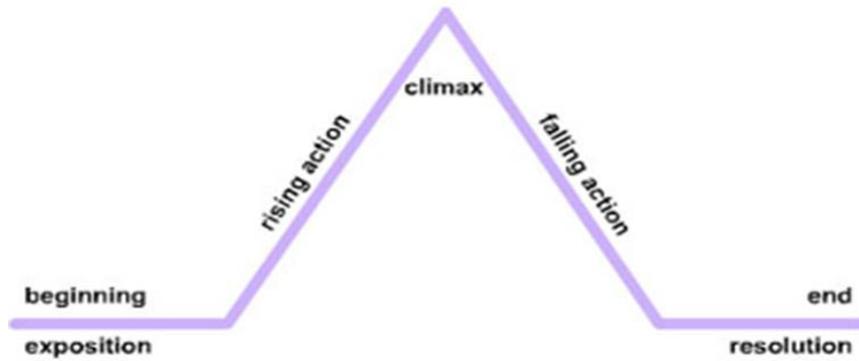
- It includes information about a book like its title and author. Introduction gives the background of the story where readers will be able to understand what the story is about and where it is headed.

2. CHARACTERIZATION

- It describes the attributes and emotions of the characters in the story. The characters may be described as how people are described in the real world. Some people may relate to the story because of the character that the author built. A good description of their personality is what makes the readers love or hate the characters in the story.

3. PLOT

- The analysis of the plot seeks to examine the way the introduction, the suspense, the climax, and the conclusion are written. It looks after the element of suspense that could keep the readers hooked. The writer may compare the plot of the book being reviewed with other books similar to its genre. The writer may also suggest ideas that could have been added or removed from the plot that could make the story better. For example, one can suggest a different ending to a story.



4. ART AND DELIVERY

- This part where one tries to critique the artistic side of the book. Art and delivery may refer to the typography and the illustration of the book.
- **TYPOGRAPHY** is the art and technique of arranging the letters to make a written language readable and beautiful. This refers to the font size, font style, letter spacing, line spacing and line length. On the other hand, illustrations are drawings and other graphic materials that are found in the book.

5. FINAL VERDICT

- Final verdict is like a conclusion wherein final comments and overall critiques are expressed. This is also where the book is rated based on the reviewer's opinion and standards.

FOUR STAGES IN WRITING A BOOK REVIEW

1. **Before you Read.** There will be elements that you need to consider before beginning to write your review of a book. By, considering these elements, your book review would be a lot easier to write.

a. Author

- Who is the author?
- What is his or her nationality?
- What other books has the author written?
- What is his or her typical style of writing?
- Is the author affiliated with any organization?
- Has the author won any awards?
- Why did the author write the book?

Take note that it is essential to know the author's biographical information because it would help the reader to understand the book being reviewed. Just make sure that the biographical information that you will get as a reviewer is relevant or important to the subject of the review.

b. Titles

- How does the title fit in?
- Is it relevant in the work?
- How was it applied in the work?
- Does it encapsulate the message of the text?
- Is it interesting as to catch the attention of the readers?

c. Genre

- What type of book is it? Fiction, non-fiction, etc.?
- What is the purpose of the work?

d. Preface

- Does the author provide any hint of what the book is about?
- Is the preface well-written?
- Does the author present his or her purpose for writing the book?

e. Introduction

- Does the author himself provide the introduction?
- Is there another guest that provided the introduction?
- Is there any revealing information provided by the author in this part?

f. Table of Contents

- Is the arrangement by chapters or sections?

g. Cover/Book Jacket

- Does the book jacket provide a synopsis?
- Does it provide pictures or anything that can catch the reader's attention?

h. **Abstract or Summaries**

- Not all books may present abstracts or summaries. Do not miss this part in case it is provided because this is where the author provides his point of view.
- Is it easy to understand the author's point of view?
- Is it difficult?
- What is the reason?
- Is the author refuting earlier works?

2. **As you Read.** This time, pay more attention to the Introduction and Preface. If at first you just considered checking these parts, that is to give you an idea of the author's perspectives or his or her reasons for writing the book. Take note too of the book's genre- that a book being reviewed may be fiction or non-fiction. While some books can be simple, other books may be complicated. Some books like romance, novels, etc., include characters, settings, dialogue, plots, etc., that you need to evaluate, too. You are provided examples of questions for some of these below.

Be ready to take notes on the following:

a. **Characters**

- Are there characters in the work?
- How does each character affect the story?
- Is there a main character?
- Does each character develop?
- What type of character are they? Flat, round, static, dimensional, etc.?

b. **Setting**

- What is the setting?
- Is it significant in the work?
- Are the scenic effects used?
- Are they effective?
- Has the setting affected or influenced the characters or the plot?

c. **Theme**

- What are the story's themes?
- How are the themes developed?
- Is the theme new and original?
- Is the theme traditional and familiar?
- Is the theme effective or not?
- How do they contribute to the work?

d. **Plot**

- How did the author handle various elements of the plot?
- What devices are used in the complication and resolution?
- What are the elements of mystery and suspense?
- Is there a subplot?
- How is it related to the main plot?

e. **Style**

- What style does the author use?
- How effective is the dialogue?

f. **Argument**

- How is the work's argument set up?
- How does the author support his or her findings?
- Does the work support its argument?

g. **Quotes**

- What quotes are used in the work?
- Is there a particular quote that stands out?

h. **Index**

- Is the index accurate?
- What sources does the author use- primary? Secondary?

Note: Not all these will be included in your book review. The elements evaluated depends on they kind of book for review – whether fiction or non-fiction, etc.

3. **Writing the Review.** Begin with a couple of sentences describing what the book is about. This will give your audience or readers a background of the work.

Consider the following hints in writing the review:

- a. Include the title of the book, its author, publisher, publication, etc.

- b. Remember that your readers may not have read the book on review yet, so be careful not to give spoilers that would reveal twist that should not be revealed.
 - c. If it a story or novel, work on the main character to a few characters only- those that think are important or have given an impact in the story. As you write about characters, recall their personalities.
 - d. Your conclusion should summarize and should not introduce a new material.
 - e. Discuss what you particularly liked and did not like in the book.
 - f. Choose only one or few points to discuss.
 - g. Summarize your thoughts of the book by suggesting or recommending the book for reading.
4. **Revising.** After having written your draft, it is now time to revise. Revising means making changes or doing some modifications in your paper. But you should not revise your paper right after you have written it. Allow at least a day to elapse before starting your revision. Writers get so absorbed with what they have written that most of the time, they miss the typos and other mistakes. Check for unity, organization and logical development. Make sure that you check your main points clearly. If you discover that you have done repetitions in your ideas, correct them. Make sure that you have explained your point well.

TO DO LIST:

ACTIVITY: HONE YOUR SKILLS!

- A. Answer the following questions comprehensively. Answer will be written on a short bond paper, justify , 12 is the font size and Century Gothic is the font style.
- 1. What is a book review?
 - 2. What is a book report?

DIRECTIONS:Make a book review of any fiction book of your choice following the steps in writing a book review. In a long bond paper, 12 is the font size, Century Gothic is the font style and justify.

Follow this format:

BOOK REVIEW NOTE SHEET

FICTION

Title:

Author:

Date of the book was published:

- 1. Summary
Characters
Name: (A few words about them)
- 2. Plot
- 3. Author's Main Idea
- 4. Special Features
- 5. Your Opinion



LA IMMACULADA CONCEPCION SCHOOL
JUNIOR HIGH SCHOOL
GRADE 11 – BREAD AND PASTRY

MARCH 13-20, 2020

Activity

1. Watch videos on YouTube and get an idea on how to make your own bread or cake recipe. Write it on a one whole sheet of paper.

2. Create a vlog using your own recipe of bread or cake. (Bake or non-bake)
 - A. Present the Ingredients
 - B. Mise en place
 - C. Procedures
 - D. Give the Nutritional Value



March 16 – 20, 2020

Topic: Differentiation Rules for Algebraic Functions

1. The Constant Rule

$$\text{Examples: } f(x) = 2, f'(x) = 0$$
$$y = -5, y' = 0$$

2. The Power Rule

$$\text{Examples: } f(x) = x^5, f'(x) = 5x^4$$
$$y = 2x^{11}, y' = 2(11) x^{11-1} = 22x^{10}$$

3. The Identity Function Rule

$$\text{Example: } f(x) = x, f'(x) = 1$$
$$y = x, y' = 1$$

4. The Constant Multiple Rule

$$\text{Examples: } f(x) = 8x^6, f'(x) = 6(8) x^{6-1} = 48x^5$$
$$y = 4x^{-3}, y' = -3(4) x^{-3-1} = -12x^{-4} = -12/x^4$$

5. The Sum and Difference Rule

$$\text{Example: } f(x) = 5x^4 + 3x^3 - 6x + 8$$
$$f'(x) = d/dx(5x^4) + d/dx(3x^3) - d/dx(6x) + d/dx(8)$$
$$= 5(4x^3) + 3(3x^2) - 6x^0 + 0$$
$$= 20x^3 + 9x^2 - 6$$

6. The Product Rule:

$$\text{Example: } f(x) = (4x - 3)(2x + 5)$$
$$f'(x) = (4x - 3)d/dx(2x + 5) + (2x + 5)d/dx(4x - 3)$$
$$= (4x - 3)(2) + (2x + 5)(4)$$
$$= 8x - 6 + 8x + 20$$
$$= 16x + 14$$

7. The Quotient Rule

$$\text{Example: } f(x) = (x^2 + 3) / (5x + 4)$$
$$f'(x) = \frac{(5x + 4) d/dx(x^2 + 3) - (x^2 + 3)d/dx(5x + 4)}{(5x + 4)^2}$$
$$= \frac{(5x^2 - 3x + 2)(6x) - (3x^2 + 4)(10x - 3)}{(5x + 4)^2}$$
$$= \frac{(30x^3 - 18x^2 + 12x) - (30x^3 - 9x^2 + 40x - 12)}{(5x^2 - 3x + 2)^2}$$
$$= \frac{-9x^2 - 28x + 12}{(5x + 4)^2}$$

Activity : Find the derivative of each of the following functions.

1. $f(x) = -6x + 3$
2. $f(x) = x^2 - 4x + 9$
3. $f(x) = 2x^5 - 4x^3 + 5x - 6$
4. $f(x) = x^{-6} + 4x^3$
5. $f(x) = 6x^3 + 8x^{-1}$
6. $f(x) = (x^2 - 3)(2x - 3)$
7. $f(x) = (3x^2 - 1)(2x + 3)$
8. $f(x) = (3x^2 + 5)^2$
9. $f(x) = (3x^2 - 4x + 1)(2x - 3)$
10. $f(x) = (x^2 - 5x - 7)(x^2 - 5)$
11. $f(x) = \frac{x^2 - 3}{2x - 1}$
12. $f(x) = \frac{x^2 - 4x + 4}{x - 5}$



Topic: Solving Problems Involving Sampling Distribution of the Sample Means

I. Lesson Objective

At the end of this lesson, students are expected to solve problems involving sampling distribution of the sample means.

II. Lesson Proper

The Central Limit Theorem is of fundamental importance in statistics because it justifies the use of normal curve methods for a wide range of problems. This theorem applies automatically to sampling from infinite population. It also assures us that no matter what shape of the population distribution of the mean is, the sampling distribution of the sample means is closely normally distributed whenever n is large. Consequently, it justifies the use of the formula

$$z = \frac{X - \mu}{\frac{\sigma}{\sqrt{n}}}$$
 when computing for the probability that \bar{x} will take on a value within a given range in the sampling distribution of \bar{x} .

Where

\bar{x} = sample mean

μ = population mean

σ = population standard deviation

n = sample size

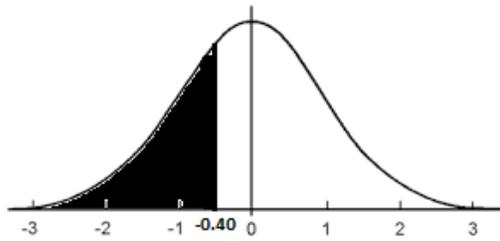
Sample Problem # 1:

Time to Complete an Examination

The average time it takes a group of college students to complete a certain examination is 46.2 minutes. The standard deviation is 8 minutes. Assume that the variable is normally distributed.

a. What is the probability that a randomly selected college student will complete the examination in less than 43 minutes?

Steps	Solution
1. Identify the given information	$\mu = 46.2$ $\sigma = 8$ $X = 43$
2. Identify what is asked for	$P(X < 43)$
3. Identify the formula to be used	Here we are dealing with an individual data obtained from the population. So, we will use the formula $z = \frac{X - \mu}{\sigma}$ to standardize 43.
4. Solve the problem	$z = \frac{X - \mu}{\sigma}$ $= \frac{43 - 46.2}{8}$ $= -0.40$

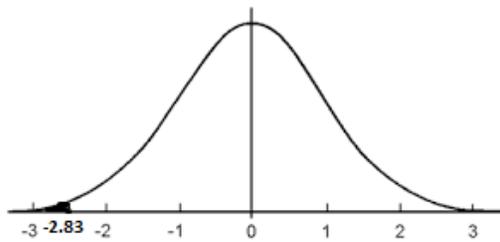


We shall find $P(X < 43)$ by getting the area under the normal curve.

$$P(X < 43) = 0.5000 - 0.1554 = 0.3446$$

5. State the final answer	So, the probability that a randomly selected college student will complete the examination in less than 43 minutes is 0.3446 or 34.46%
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b. If 50 randomly selected college students take the examination, what is the probability that the mean time it takes the group to complete the test will be less than 43 minutes?

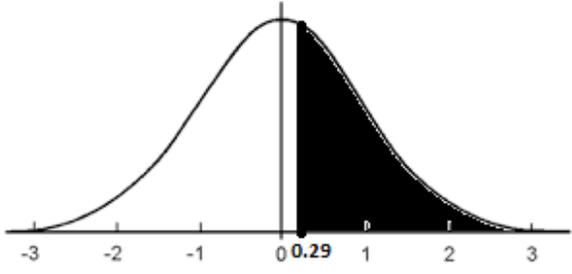
Steps	Solution
1. Identify the given information.	$\mu = 46.2$ $\sigma = 8$ $\bar{X} = 43$ $n = 50$
2. Identify what is asked	$P(<43)$
3. Identify the formula to be used.	Here we are dealing with data about the sample means. So, we will use the formula $z = \frac{X - \mu}{\frac{\sigma}{\sqrt{n}}}$ to standardize 43.
4. Solve the problem.	$z = \frac{X - \mu}{\frac{\sigma}{\sqrt{n}}}$ $z = \frac{43 - 46.2}{\frac{8}{\sqrt{50}}}$ $z \approx -2.83$  <p>We shall find $P(<43)$ by getting the area under the normal curve.</p> $P(<43) = 0.5000 - 0.4977 = 0.0023$
5. State the final answer.	So, the probability that 50 randomly selected college students will complete the test in less than 43 minutes is 0.0023 or 0.23%

Sample Problem # 2:
Cholesterol Content

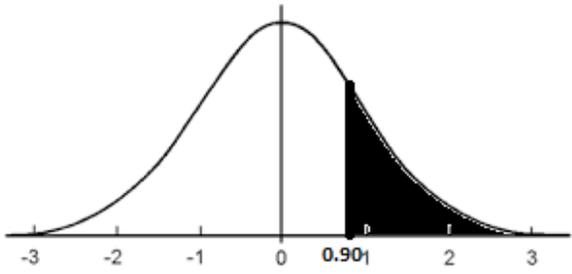
The average number of milligrams (mg) of cholesterol in a cup of a certain brand of ice cream is 660 mg, and the standard deviation is 35 mg. Assume the variable is normally distributed.

a. If a cup of ice cream is selected, what is the probability that the cholesterol content will be more than 670 mg?

Steps	Solution
1. Identify the given information	$\mu = 660$

	$\sigma = 35$ $X = 670$
2. Identify what is asked.	$P(X > 670)$
3. Identify the formula to be used	Here we are dealing with an individual data obtained from the population. So, we will use the formula $z = \frac{X - \mu}{\sigma}$ to standardize 670.
4. Solve the problem	$z = \frac{X - \mu}{\sigma}$ $z = \frac{670 - 660}{35}$ $z = 0.29$  <p>We shall find $P(X > 670)$ by getting the area under the normal curve. $P(X > 670) = 0.5000 - 0.1141$ $= 0.3859$</p>
5. State the final answer	So, the probability that the cholesterol content will be more than 670 mg is 0.3859 or 38.59%

b. If a sample of 10 cups of ice cream is selected, what is the probability that the mean of the sample will be larger than 670 mg?

Steps	Solution
1. Identify the given information.	$\mu = 660$ $\sigma = 35$ $\bar{X} = 670$ $n = 10$
2. Identify what is asked.	$P(\bar{X} > 670)$
3. Identify the formula to be used.	Here we are dealing with data about the sample means. So, we will use the formula $z = \frac{X - \mu}{\frac{\sigma}{\sqrt{n}}}$ to standardize 670.
4. Solve the problem	$z = \frac{X - \mu}{\frac{\sigma}{\sqrt{n}}}$ $z = \frac{670 - 660}{\frac{35}{\sqrt{10}}}$ $Z = 0.90$  <p>We shall find $P(\bar{X} > 670)$ by getting the area under the normal curve. $P(\bar{X} > 670) = 0.5000 - 0.3159$ $= 0.1841$</p>

5. State the final answer

So, the probability that the mean cholesterol content of 10 randomly selected cups of ice cream will be more than 670 mg 0.1841 or 18.41%

Exercise: (1 whole yellow paper)

The average cholesterol content of a certain canned goods is 215 milligrams, and the standard deviation is 15 milligrams. Assume the variable is normally distributed.

- A. If a canned good is selected, what is the probability that the cholesterol content will be greater than 220 milligrams?
- B. If a sample of 25 canned goods is selected, what is the probability that the mean of the sample will be larger than 220 milligrams?