![Seattle Colleges North·Central·South - Faculty Development logo]
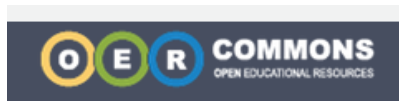

District Faculty Development
Spring 2021 Professional Development Zoom Event
Joint Zoom Event
In partnership with E-Learning, North Seattle College

Representing the Underrepresented: Adding Culturally Responsive and Anti-Racist Content to Your Course Materials and OERs

Wednesday, May 26th, 2021, 1:30-2:30pm

Facilitated by

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Jess Brooks, Portland Community College

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Representing the Underrepresented: Adding Culturally Responsive and Anti-Racist Content to your Course Materials and OERs

Jess Brooks and Cara Lee
Portland Community College

Seattle Colleges, May 2021

Overview

- First a thank you to David Lippman
- Why is representation important
- Areas of Representation
- More Culturally Responsive elements
- Group Activity
- Questions

Math in Society

Mathematics for liberal arts majors

Portland Community College

Edition 1.0

OpenOregon
Educational Resources

Link to Text:

Why is Representation Important?

When I see myself in the content I feel like…

- I belong in the class and subject area
- I matter
- I'm safer
- I'm acknowledged and celebrated
- This class is for me
- This class is relevant to me and my life
- I want to learn

This is only the beginning. There is so much more to do…

For example, we have yet to represent people with disabilities in the content

Representation and Culturally Responsive Elements

Areas of Representation

- Biographies
- Names
- Pronouns
- Racial context

More Culturally Responsive Features

- Relevance
- Accessibility
- Technology

1	Logic and Sets
2	Financial Math
3	Statistics
4	Probability
5	Democracy

Chapter 1 Logic and Sets

Dr. Jonathan Farley and Partially Ordered Sets.

Dr. Jonathan Farley[1] grew up near Rochester, New York and got his mathematics degree from Harvard University. He then went to Oxford University in the United Kingdom. (Later he would return as a Fulbright Distinguished Scholar.) He was awarded Oxford's highest mathematics awards for graduate students, the Senior Mathematical Prize and the Johnson Prize, and earned his doctorate a year later (MIT, 2005). He had a two-year visit to the Mathematical Sciences Research Institute from 1995 to 1997. He is currently an Associate Professor at Morgan State University, a historically Black college.

Names

Resource: https://www.behindthename.com/

Story of Iman and Batula

14. Keisha received an inheritance of $20,000 compounded continuously. How much will she

17. Miao is going to finance new office equipment year term. If she can afford monthly payments of $1 equipment can she buy?

16. Sol is managing investments for a non-profit invest some money in an account earning 5% APR with the goal to have $30,000 in the account in 6 y Sol deposit into the account?

● Question 5 ▼ < >

Amir started with $460 that he invested in a retirement acco

What is the principal? $

What interest was earned? $ Hint*: I

Pronouns and Gender Diversity

Example 2.5.8. Phyllis and Gladys are married and filing jointly. Together their taxable income is $112,000. Use the simplified 2018 tax tables from this section to determine how much they owe in taxes.

▶ Solution

Example 2.5.6. If Avery is filing single and has $55,100 in taxable income, calculate their tax.

▶ Solution

5. Kiran collected data on the salaries of their friends. They found that female and nonbinary friends made less than male friends, so they concluded that women and nonbinary people make less than men.

Racial Context

5.1.1 Historical Context for This Chapter

In this chapter we are going to study some of the math used in the United States government today. In doing this, it is very important to acknowledge the Native American genocide and race-based chattel slavery which are often left out of math textbooks.

We are including this history to show how racist policies, laws and practices like segregation, racial profiling, police brutality, mass incarceration, redlining and voter suppression continue to this day to limit the freedoms, rights and economic prospects of African Americans. With the COVID-19 pandemic and the death of George Floyd by a police officer, there is greater awareness of systemic racism than ever before.

Example 5.1.2. A new state is named after George Floyd, killed by the police in Minneapolis, Minnesota in 2020. Floyd has three counties: King, Garner and Taylor. They are named after African Americans who were also victims of police brutality. Rodney King was brutally beaten by four white police officers and Eric Garner and Breonna Taylor were killed by the police. The Floyd State House of Representatives has 41 members. If the legislature wants to divide this representation along county lines (which is *not* required, but let's pretend they do), let's use Hamilton's method to apportion them. The populations of the counties are as follows:

County	Population
King	162,310
Garner	538,479
Taylor	197,145
Total	897,934

5.1.4 Hamilton's Method

Alexander Hamilton (1755 - 1804) was raised in St. Croix in the U.S. Virgin Islands by a poor family. He was motivated by his low socioeconomic status to work himself into a higher social standing. He eventually came to the colonies and worked himself into circles of wealth and influence. While Hamilton wasn't pro-slavery and considered himself an abolitionist, when choosing between his societal status and moral obligation, he chose the former.

He wed Elizabeth Schuyler, who was from a prominent family who owned slaves. He was involved with the transactions of slaves for his in-laws which further muddled his anti-slavery stance. Furthermore, Hamilton also traded and sold slaves as part of his duties for the Continental Army.
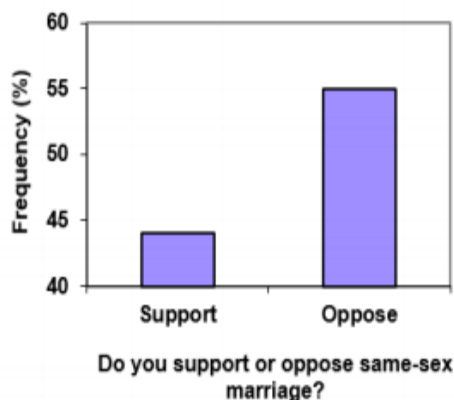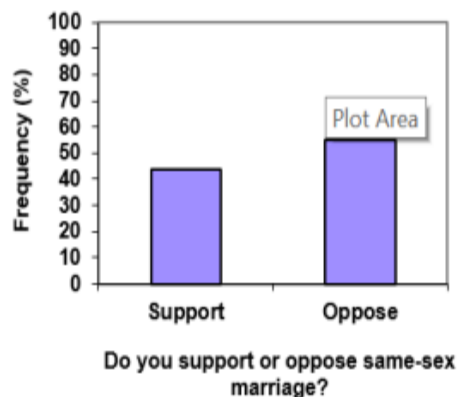
Relevance

Example 2.4.1 Teresa wants to buy a car that costs $15,000. She has $3,000 saved for the car and plans to finance the rest. She found a 3-year loan at 2.75% APR and a 5-year loan at 4% APR. How much will her monthly car payment be for each loan and how do these loans compare to each other.

19. Let A be: I live in Oregon.

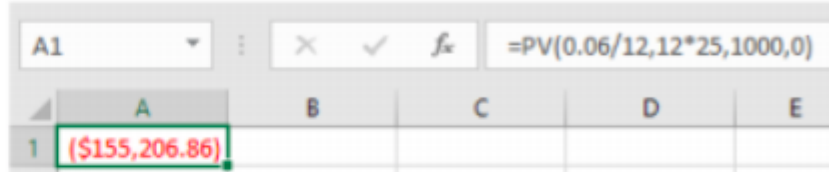Let B be: I go to Portland Community College

A	B	A and B
T		
T		
F		
F		

Do you support or oppose same-sex marriage?

Do you support or oppose same-sex marriage?

Technology

To use a spreadsheet for this problem, we use the =PV formula because we want to know what the present value would be at the time you want to sell in 5 years. We enter:

=PV(0.06/12, 12*25, 1000,0)

which gives us $155,206.86.

To check this with the formula we have:

$$P = \frac{1000\left(1 - \left(1 + \frac{0.06}{12}\right)^{-12 \cdot 25}\right)}{\frac{0.06}{12}}$$

$$= \frac{1000\left(1 - (1.005)^{-300}\right)}{0.005}$$

$$\approx \$155,206.86$$

Before and After

Representing more cultures

Try it here, matching each animal with the noise it makes

- [-] dog
- [-] cat
- [-] cow

a. baa
b. arf
c. meow
d. moo

Match each word in English to words with a similar meaning in other languages. If you don't know the words you can look them up on the internet or use your repeated tries to get them all right.

- [-] yes
- [-] hello
- [-] welcome

a. hola, annyeong, ahlan, halo
b. joigin, namaste, sayonara, au revoir
c. soo dhowayn, velkommen, karibu, nau mai
d. ndiyo, ah-ha, da, ba'leh

Before and After

Deprioritizing dominate culture and assumptions about students' backgrounds

Try it now. Finish the name of the song:

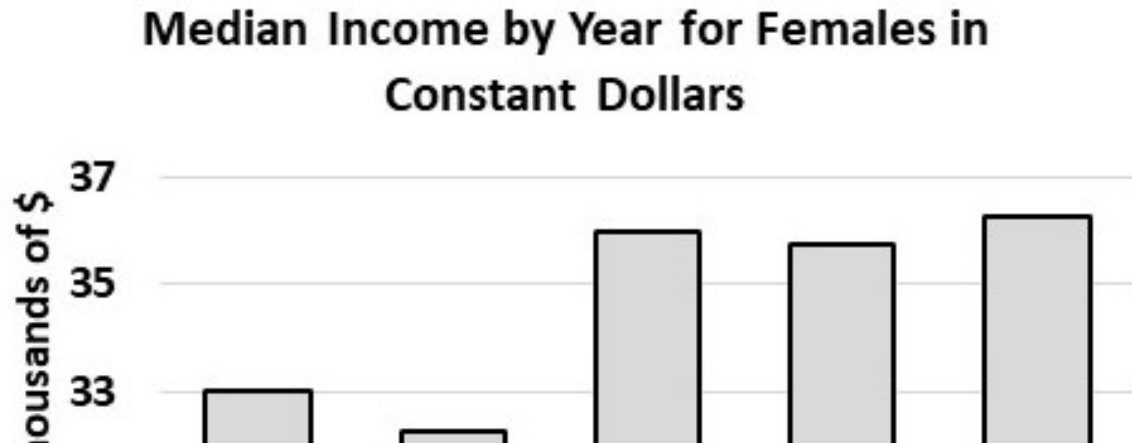Twinkle Twinkle Little [   ]

[Show Answer]

Open your textbook to Section 1.3. The answer to this question is the first word of Section 1.3's title. Find the first word of Section 1.3's title, and enter that word in the answer box below.

[   ]

Prioritizing relevance and resources needed to be successful in the course

Before and After - Gender Inclusive

The graph below shows the change in median income of females from 2005 to 2009. Why is the graph misleading?

The graph below shows the change in median income of people who identify as female from 2005 to 2009. Why is the graph misleading?

Median Income by Year for Females in Constant Dollars

Activity

- [Google Doc to Record Ideas](#)
- Introduce Yourselves (name, pronouns, field)
- Work through the 4 areas as you choose
    1. How can you apply this to your field and your materials? - write in your group space
    2. Try a before and after question
    3. Resource Links - browse and add to the list
    4. Post your own "before" question and/or give suggestions
- We'll save about 10 minutes for questions when we come back together. We'll come back at 2:20.

Questions

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