

General introduction

27 class meetings, not counting exam days

43 textbook sections

$43/27=1.5926$

1-2 textbook sections per class meeting

1 Relations and Functions

1.1 Sets of Real Numbers and the Cartesian Coordinate Plane

1.1.4 Exercises

page 14: 1, 3, 5, 11, 17, 23, 31

1.2 Relations

1.2.2 Exercises

page 29: 1, 3, 7, 18, 21, 22, 27, 37, 41, 50

Dr. Goral Faculty website

<https://faculty.nvcc.edu/nvdgoral/>

FACULTY TOOLKIT FOR EDUCATING STUDENTS ABOUT NOVA ALL ACCESS

We need to educate our students to determine whether All Access saves them money and give students the information to opt out if it does not.

Here are FOUR tools to help you inform your students about the program:

[Canvas Announcement](#)

[Syllabus Blurb](#)
[Canvas Course Link](#)
[NOVA All Access Calculator Tool](#)

POST A REMINDER ABOUT THE ALL ACCESS OPT OUT DEADLINE IN CANVAS: Copy and paste this information into your Canvas announcements. Modify as you see fit.

When you register for classes each semester, you're automatically enrolled in NOVA All Access and charged a fee of \$22.50 per credit hour. The fee will appear on your student account, along with your tuition and other fees. **YOU** need to decide if the fee benefits you. And **YOU** need to opt out if it does not save you money. [Complete details about the NOVA All Access program are available here.](#)

How do you determine if the program saves you money? Use this [Google Sheets calculator tool](#) to decide whether the All Access cost is higher than your materials would cost to get on your own.

How do you opt out if it does not save you money? If the program does not save you money, **YOU CAN OPT OUT** and get your money back to buy your textbooks independently. [Click here to access the webpage.](#) You will need to **SCROLL DOWN** to the middle of the page to find the small button that says "Opt Out."

ADD A BLURB IN YOUR SYLLABUS ABOUT NOVA ALL ACCESS: Copy and paste this information into your syllabus. Modify as you see fit.

NOVA ALL ACCESS TEXTBOOK PROGRAM: When you register for classes each semester, you're automatically enrolled in NOVA All Access and charged a fee of \$22.50 per credit hour. The fee will appear on your student account, along with your tuition and other fees. **YOU** need to decide if the fee benefits you. And **YOU** need to opt out if it does not save you money. [Complete details about the NOVA All Access program are available here.](#)

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DIRECT YOUR STUDENTS TO THE CANVAS COURSE LINK: All Canvas courses now have a link in the navigation bar to "NOVA All Access." Be sure to point your students there so that they can educate themselves about whether the program saves them money and so that they can opt out if it does not.

EXPLAIN TO YOUR STUDENTS HOW TO USE THE "CALCULATOR" TOOL: [The NOVA All Access Calculator Tool](#) is designed to guide students to make an informed choice about their

Copy of NOVA All Access Calculator

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1:F11 1. Make sure you have read your syllabi for all classes and consulted with the professor to ensure you know all the required books and materials.

NOVA All Access

Use this calculator to make an informed decision about the value of NOVA All Access for you. If you opt-out, you will need to obtain your textbooks (physical or digital) on your own (by the college bookstore or another source).

- Make sure you have read your syllabi for all classes and consulted with the professor to ensure you know all the **required** books and materials.
- In column 1, enter the names all of the courses you are taking this term.
- In column 2, enter the names for all the required books.
- In column 3, enter the number of credits each course contains;
you can find this number on the NOVA [schedule of classes](#) (look for a number followed by CR immediately following the course number -- i.e. **ENG 111 - College Composition I (3 CR)) or your student schedule in SIS. (look for the column that lists "units")
- In column 4, enter the TOTAL cost for the books in this course. You can use the college store, [nvcc.bncollege.com](#) or the cost at whatever store you use to buy books.
- Finally, in column 5, you will see the cost for each class to use NOVA All Access.

Course	Required books	Number of credits	Cost of materials (available on nvcc.bncollege.com or wherever you get your materials)	NOVA All Access cost (\$22.50/credit)	
Example 101	Examples and other examples	2	\$150.00	\$45.00	
Example 102	None	3	\$0.00	\$67.50	
Example 104	More examples and references	3	\$75.00	\$67.50	
Example 105	Digital examples by subscription	3	\$200.00	\$67.50	
				\$0.00	
				\$0.00	
				\$0.00	
				\$0.00	
				\$0.00	
				\$0.00	
Total		11	\$425.00	\$247.50	\$177.50

If the Difference category is red, you should opt-out of All Access. If it is green, you should stay in All Access.

Your Name MTH 167-004N bonus quiz 1

Write each problem. Put a box around each answer.

Show all calculations. No calculator.

1. Simplify $\frac{\frac{2}{5}}{\frac{4}{15}}$. invert and multiply

$$\left(\frac{2}{5}\right)\left(\frac{15}{4}\right) = \frac{(2)(3)(5)}{(5)(2)(2)} = \boxed{\frac{3}{2}}$$

SN check: $\frac{\frac{2}{5}}{\frac{4}{15}} = \frac{3}{2}$

2. Solve and show your check. $3x - 8 = 14$

$$3x = 22$$

$$\boxed{x = \frac{22}{3}}$$

check: $3\left(\frac{22}{3}\right) - 8 \stackrel{?}{=} 14$

$$22 - 8 \stackrel{?}{=} 14$$

$$14 = 14 \quad \checkmark$$

$$\frac{22}{3} \approx 7.3333$$

Long and detailed presentation

$$3x - 8 + 8 = 14 + 8$$

$$3x + (-8 + 8) = 22$$

$$3x + 0 = 22$$

$$3x = 22$$

$$\frac{3x}{3} = \frac{22}{3}$$

$$\left(\frac{3}{3}\right)x = \frac{22}{3}$$

$$(1)x = \frac{22}{3}$$

$$\boxed{x = \frac{22}{3}}$$

$$3\left(\frac{22}{3}\right) - 8 = 14 \text{ is true}$$

$$3(7.3333) - 8 = 14 \text{ is false}$$

3. Find the slope-intercept equation of the line passing through the points $(1, 6)$ and $(5, -9)$.

The general slope-intercept equation of a line is $y = mx + b$, where m = slope and b = y - intercept.

$$m = \frac{\text{rise}}{\text{run}} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-9 - 6}{5 - 1} = \frac{-15}{4} = m$$

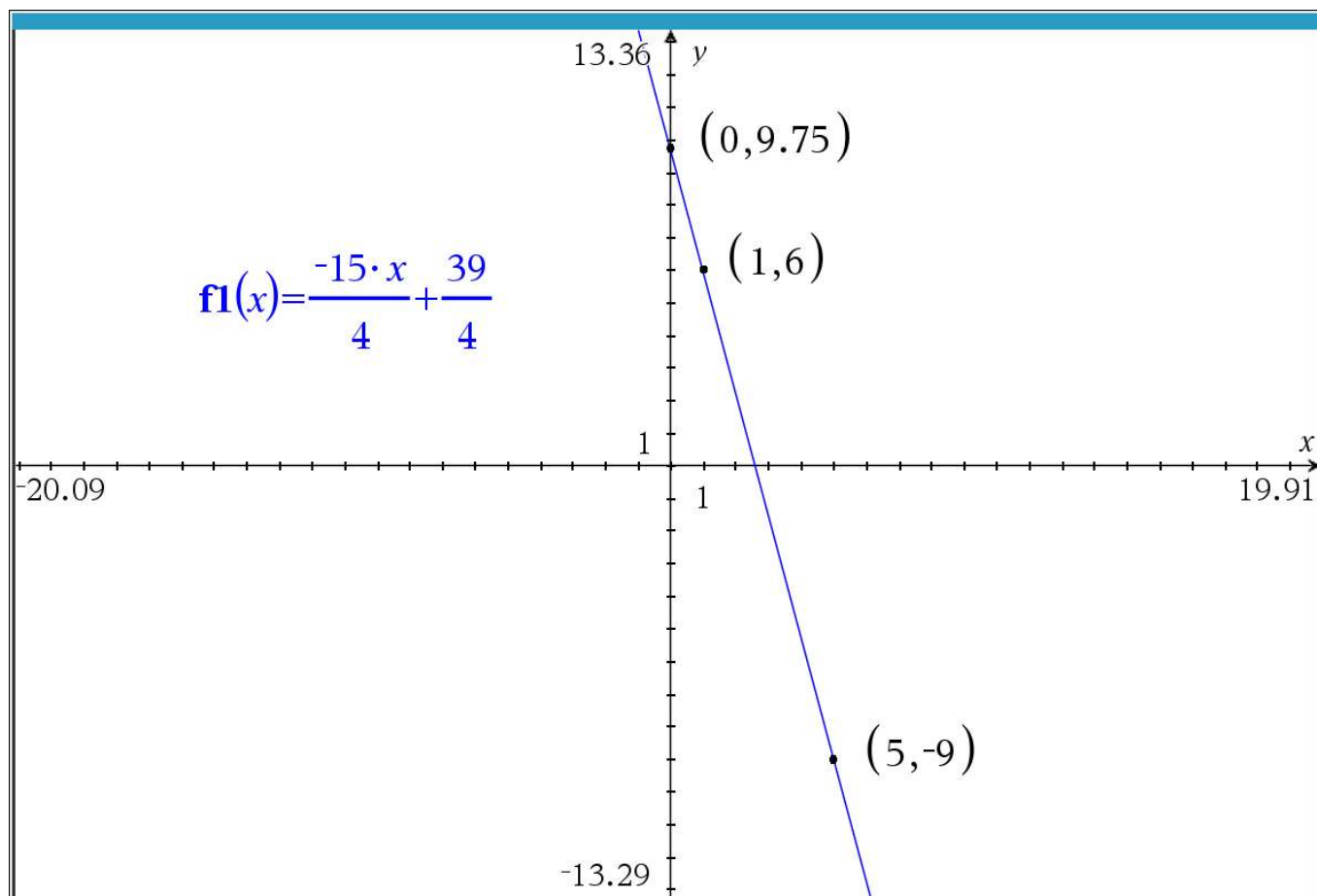
$$y = \frac{-15}{4}x + b$$

$$6 = \frac{-15}{4}(1) + b$$

$$b = 6 + \frac{15}{4} = \frac{24}{4} + \frac{15}{4} = \frac{39}{4} = b$$

$$y = \frac{-15}{4}x + \frac{39}{4}$$

I graphed the equation and used Trace to verify that the given points lie on the line.



Copilot

Step 1: Find the slope (m)

We use the slope formula:

$$m = (y_2 - y_1) / (x_2 - x_1)$$

Plug in the coordinates (1, 6) and (5, -9):

$$m = (-9 - 6) / (5 - 1) = -15 / 4$$

Step 2: Use point-slope form

Point-slope form is:

$$y - y_1 = m(x - x_1)$$

Using point (1, 6) and slope -15/4:

$$y - 6 = (-15/4)(x - 1)$$

Step 3: Convert to slope-intercept form ($y = mx + b$)

Distribute the slope:

$$y - 6 = (-15/4)x + 15/4$$

Add 6 to both sides:

$$y = (-15/4)x + 15/4 + 6$$

$$y = (-15/4)x + 15/4 + 6$$

Convert 6 to fourths:

$$6 = 24/4$$

So:

$$y = (-15/4)x + (15/4 + 24/4) = (-15/4)x + 39/4$$

Final Answer:

$$y = (-15/4)x + 39/4$$

4. Simplify $\frac{a^3 b^2}{ab^3}$.

$$\left(\frac{a^3}{a}\right)\left(\frac{b^2}{b^3}\right) = (a^{3-1})(b^{2-3}) = a^2 b^{-1} = \boxed{\frac{a^2}{b}}$$

5. In one or two sentences, explain one difference between arithmetic and algebra.

Possible answer: Arithmetic deals with adding, subtracting, multiplying, and dividing numbers. Algebra uses letters to represent variables that can take numerical values.

I gave a brief overview of section 1.1.

Riddle:

There is a village with people in it, but no one leaves or enters.

In the village, there is one, male, clean-shaven barber.

If a man in the village shaves himself, he is not shaved by the barber.

If a man in the village does not shave himself, He is shaved by the barber.

Who shaves the barber?

