

Why do you need this?



Allowing student choice in how they practice will encourage them to do the practice!



You can differentiate by the number of problems required of particular students.

Characteristics of Linear Graphs Choice Board

The image shows two overlapping worksheets titled "Identifying Graph Characteristics Choice Board". Each worksheet has a header for "Name:" and "Date:" and "Period:". The instructions are "Directions: Choose ___ problems from each column. Show your work in the boxes." Each problem consists of a coordinate plane with a line graphed and a set of fields for "X-Intercept:", "Y-Intercept:", "Zero:", and "f(x) = __, x = __" and "x = __, f(x) = __".

The top worksheet is blank. The bottom worksheet has handwritten answers in purple ink:

- Problem 1: X-Intercept: $(-4, 0)$, Y-Intercept: $(0, 4)$, Zero: $x = -4$, $f(x) = 2, x = -2$, $x = -6, f(x) = -2$
- Problem 2: X-Intercept: $(3, 0)$, Y-Intercept: $(0, 6)$, Zero: $x = 3$, $f(x) = -2, x = 4$, $x = 6, f(x) = -6$
- Problem 3: X-Intercept: $(6, 0)$, Y-Intercept: $(0, -3)$, Zero: $x = 6$, $f(x) = -5, x = -4$, $x = 4, f(x) = -1$
- Problem 4: X-Intercept: $(-3, 0)$, Y-Intercept: *none*, Zero: $x = -3$, $f(x) = 1, x = -3$, $x = -3, f(x) = -1$ (with a note: "including 'none' solutions")

Characteristics of Linear Graphs Choice Board includes:

Name: _____ Date: _____ Period: _____

Identifying Graph Characteristics Choice Board

Directions: Choose _____ problems from each column. Show your work in the boxes.

<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = 2, x = -6$ $x = -6, f(x) =$ _____</p>	<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = 4, x = -1$ $x = -1, f(x) =$ _____</p>
<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = -2, x = 6$ $x = 6, f(x) =$ _____</p>	<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = 6, x = 1$ $x = 1, f(x) =$ _____</p>
<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = -5, x = 4$ $x = 4, f(x) =$ _____</p>	<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____</p>

- ✓ printable worksheet
- ✓ a detailed answer key
- ✓ 2 columns with 5 questions in each – 10 question total
- ✓ Spot to assign how many problems students need to complete

Characteristics of Linear Graphs Choice Board

standards covered:

CCSS: HSF-IF.B.4

TEKs: A1.7.A

VA SOLs: F.A.7.c, F.A.7.d,
F.A.7.e

Name: _____ Date: _____ Period: _____

ANSWER KEY

Identifying Graph Characteristics Choice Board

Directions: Choose _____ problems from each column. Show your work in the boxes.

<p>X-Intercept: $(-4,0)$ Y-Intercept: $(0,4)$ Zero: $x = -4$ $f(x) = 2, x = -2$ $x = -6, f(x) = -2$</p>	<p>X-Intercept: $(2,0)$ Y-Intercept: $(0,-4)$ Zero: $x = 2$ $f(x) = 4, x = 4$ $x = -1, f(x) = -6$</p>
<p>X-Intercept: $(3,0)$ Y-Intercept: $(0,6)$ Zero: $x = 3$ $f(x) = -2, x = 4$ $x = 6, f(x) = -6$</p>	<p>X-Intercept: $(-1,0)$ Y-Intercept: $(0,-3)$ Zero: $x = -1$ $f(x) = 6, x = -3$ $x = 1, f(x) = -6$</p>
<p>X-Intercept: $(6,0)$ Y-Intercept: $(0,-3)$ Zero: $x = 6$ $f(x) = -5, x = -4$</p>	<p>X-Intercept: $(-3,0)$ Y-Intercept: $(0,0)$</p>

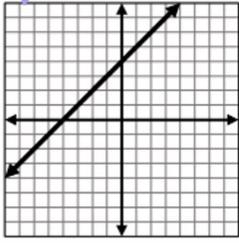
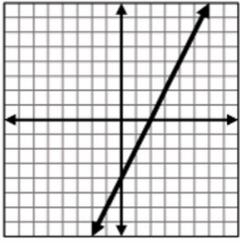
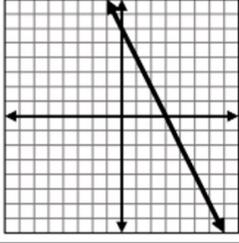
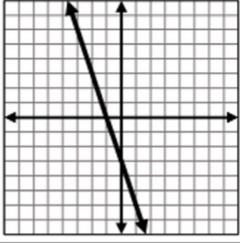
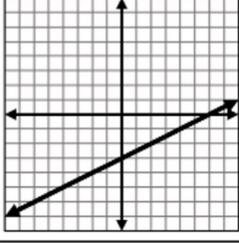
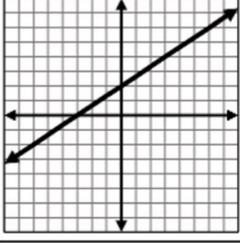
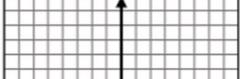
how the choice board resource works

Assign students the number of problems they need to complete from each column.

Name: _____ Date: _____ Period: _____

Identifying Graph Characteristics Choice Board

Directions: Choose _____ problems from each column. Show your work in the boxes.

	X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = 2, x =$ _____ $x = -6, f(x) =$ _____		X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = 4, x =$ _____ $x = -1, f(x) =$ _____
	X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = -2, x =$ _____ $x = 6, f(x) =$ _____		X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = 6, x =$ _____ $x = 1, f(x) =$ _____
	X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = -5, x =$ _____ $x = 4, f(x) =$ _____		X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = -2, x =$ _____ $x = 3, f(x) =$ _____
	X-Intercept: _____ Y-Intercept: _____		X-Intercept: _____ Y-Intercept: _____

Differentiate the choice board worksheet by reducing the number of problems assigned to show mastery.

Students can complete the any problems they want to in each column and in any order.

how to use this resource

This is a great individual practice activity to use when reviewing how to identify characteristics of linear graphs.

My favorite ways to use this choice board is for homework and math practice stations.

This is also a **substitute-friendly** assignment!

Name: _____ Date: _____ Period: _____

ANSWER KEY

Identifying Graph Characteristics Choice Board

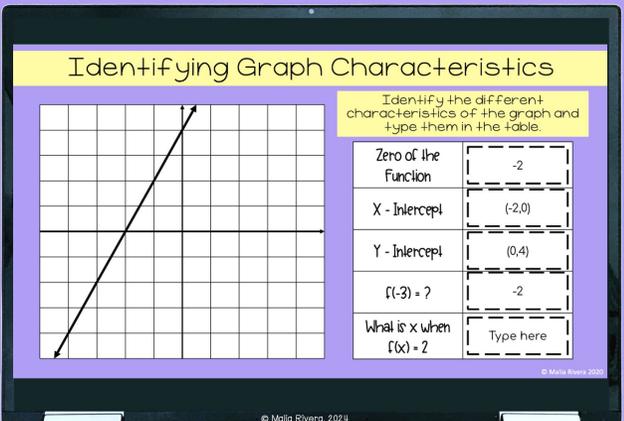
Directions: Choose _____ problems from each column. Show your work in the boxes.

<p>X-Intercept: <u>(-4,0)</u> Y-Intercept: <u>(0,4)</u> Zero: <u>$x = -4$</u> $f(x) = 2$, $x =$ <u>-2</u> $x = -6$, $f(x) =$ <u>-2</u></p>	<p>X-Intercept: <u>(2,0)</u> Y-Intercept: <u>(0,-4)</u> Zero: <u>$x = 2$</u> $f(x) = 4$, $x =$ <u>4</u> $x = -1$, $f(x) =$ <u>-6</u></p>
<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) =$ _____ $x = 6$, $f(x) =$ _____</p>	<p>Name: _____ Date: _____ Period: _____</p> <p>Identifying Graph Characteristics Choice Board</p> <p>Directions: Choose _____ problems from each column. Show your work in the boxes.</p>
<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = 2$, $x =$ _____ $x = -6$, $f(x) =$ _____</p>	<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = 4$, $x =$ _____ $x = -1$, $f(x) =$ _____</p>
<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) =$ _____ $x = -3$, $f(x) =$ _____</p>	<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = -2$, $x =$ _____ $x = 6$, $f(x) =$ _____</p>
<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = -5$, $x =$ _____ $x = 4$, $f(x) =$ _____</p>	<p>X-Intercept: _____ Y-Intercept: _____ Zero: _____ $f(x) = -2$, $x =$ _____ $x = 3$, $f(x) =$ _____</p>

You may also enjoy ...

LINEAR FUNCTION GRAPH CHARACTERISTICS

Identifying Graph Characteristics



Zero of the Function	-2
X - Intercept	(-2, 0)
Y - Intercept	(0, 4)
$f(-3) = ?$	-2
What is x when $f(x) = 2$	Type here

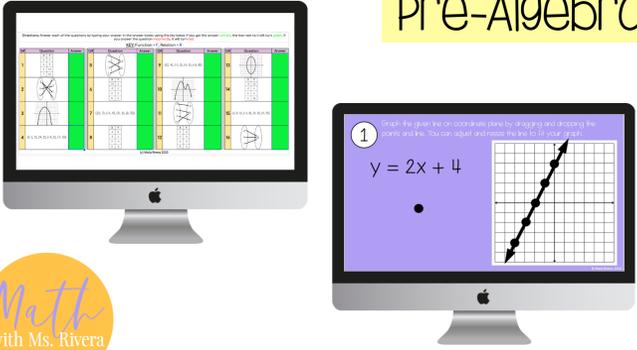
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LINEAR FUNCTIONS

Digital Activity Bundle

pre-Algebra



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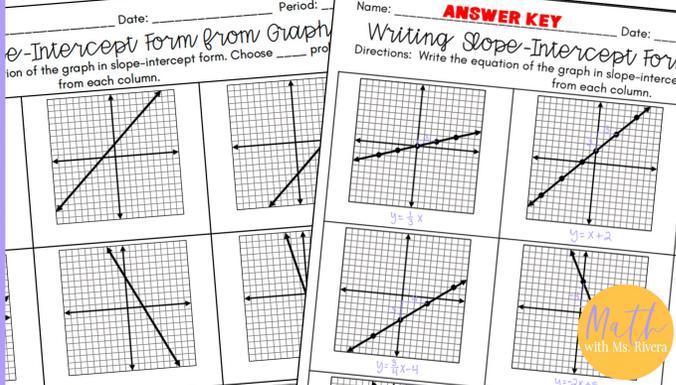


SLOPE-INTERCEPT FORM FROM GRAPHS

Choice Board

ANSWER KEY

Directions: Write the equation of the graph in slope-intercept form from each column.



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check it out!

The image shows a collage of algebra worksheets and a digital tablet. The worksheets include:

- Answer Key** for **ADDING & SUBTRACTING RATIONAL EXPRESSIONS** and **SOLVING SYSTEMS OF EQUATIONS**.
- MULTIPLYING & DIVIDING RATIONAL EXPRESSIONS** worksheet with problems like $\frac{x-2}{x^2+2x+1}$.
- SOLVING SYSTEMS OF EQUATIONS** worksheet with problems like $2. 2x - 6y = -18$ and $x = 3y - 4$.

The digital tablet displays a self-checking activity titled **Rational Expression Operations - Addition & Subtraction**. The directions are: "Answer each question and type the question number with the matching answer in the answer column to the right." The activity consists of a table with 8 questions and 8 answers, with a path of colored lines connecting the questions to their corresponding answers.

#	Question	Answer	Type the matching question numbers here
1	$\frac{5}{x} + \frac{3}{x+1}$	$\frac{2x+1}{x+2}$	
2	$\frac{2}{x+4} - \frac{x^2}{x^2-16}$	$-\frac{1}{x^2-1}$	
3	$\frac{x+2}{x^2+4x+4} + \frac{2x}{x+2}$	$\frac{2x^2+2x+5}{x^2+x-2}$	
4	$\frac{x}{x-2} + \frac{3}{x-1}$	$-\frac{x^2+2x-8}{x^2-16}$	
5	$\frac{x}{4x+8} - \frac{1}{x^2+2x}$	$\frac{8x+5}{x^2+1}$	
6	$\frac{x+2}{x-1} + \frac{x-1}{x+2}$	$\frac{x^2-3x+7}{x^2-4}$	
7	$\frac{2x+1}{x^2-4} + \frac{x-3}{x+2}$	$\frac{x^2+2x-6}{x^2-3x+2}$	
8	$\frac{x^2+2x}{x^2-1} - \frac{x+1}{x-1}$	$\frac{x-2}{4x}$	

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hey there!

My name is Malia and I'm passionate about making learning and practicing math fun. I love creating engaging math resources for my students and I hope your students enjoy this activity too!

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