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Help your Algebra 1 students  
**write linear equations in point-slope form from 2 points.** Your students will benefit from being given choice when it comes to how they want to practice math!

# POINT-SLOPE FORM FROM 2 POINTS CHOICE BOARD

Date: \_\_\_\_\_

Point-Slope Form from 2 Points

Given two points, write the equation in point-slope form. Choose \_\_\_\_\_ problem from each column. Show your work in the boxes.

(4, 5) & (2, 3)	(-3, -4) & (-1, 2)
(4, 1) & (3, -1)	(-2, 3) & (-3, -1)
(1, -5) & (4, -1)	(-4, -4)

Name: \_\_\_\_\_ **ANSWER KEY** Date: \_\_\_\_\_

Writing in Point-Slope Form from 2 Points

Directions: Given two points, write the equation in point-slope form from each column. Show your work in the boxes.

(2, -2) & (1, -3) $m = \frac{-3 - (-2)}{1 - 2} = \frac{-1}{-1} = 1$ $y + 2 = 1(x - 2)$ or $y + 3 = 1(x - 1)$	(4, 5) & (2, 3) $m = \frac{3 - 5}{2 - 4} = \frac{-2}{-2} = 1$ $y - 5 = 1(x - 4)$ or $y - 3 = 1(x - 2)$
(-2, -5) & (-1, 3) $m = \frac{3 - (-5)}{-1 - (-2)} = \frac{8}{1} = 8$ $y + 5 = 8(x + 2)$ or $y - 3 = 8(x + 1)$	(4, 1) & (3, -1) $m = \frac{-1 - 1}{3 - 4} = \frac{-2}{-1} = 2$ $y - 1 = 2(x - 4)$ or $y + 1 = 2(x - 3)$
(-1, -2) & (1, -8) $m = \frac{-8 - (-2)}{1 - (-1)} = \frac{-6}{2} = -3$ $y + 2 = -3(x + 1)$ or $y + 8 = -3(x - 1)$	(1, -5) & (4, -1) $m = \frac{-1 - (-5)}{4 - 1} = \frac{4}{3}$ $y + 5 = \frac{4}{3}(x - 1)$ or $y + 1 = \frac{4}{3}(x - 4)$

Math with Ms. Rivera

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.

# Writing in Point Slope Form from 2 Points Choice Board

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

**Writing in Point-Slope Form from 2 Points**

Directions: Given two points, write the equation in point-slope form. Choose \_\_\_\_\_ problems from each column. Show your work in the boxes.

(2, -2) & (1, -3)	(4, 5) & (2, 3)	(-3, -4) & (-1, 2)
(-2, -5) & (-1, 3)	(4, 1) & (3, -1)	
(-1, -2) & (1, -8)	(1, -5) & (4, -1)	
(-1, 3) & (2, -5)	(-3, -1) & (4, -3)	
(-1, -1) & (4, 3)	(-3, 2) & (-1, -6)	

**ANSWER KEY**

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

**Writing in Point-Slope Form from 2 Points**

Directions: Given two points, write the equation in point-slope form. Choose \_\_\_\_\_ problems from each column. Show your work in the boxes.

(2, -2) & (1, -3) $m = \frac{-3 - (-2)}{1 - 2} = \frac{-1}{-1} = 1$ $y + 2 = 1(x - 2)$ or $y + 3 = 1(x - 1)$	(4, 5) & (2, 3) $m = \frac{3 - 5}{2 - 4} = \frac{-2}{-2} = 1$ $y - 5 = 1(x - 4)$ or $y - 3 = 1(x - 2)$	(-3, -4) & (-1, 2) $m = \frac{2 - (-4)}{-1 - (-3)} = \frac{6}{-2} = -3$ $y + 4 = 3(x + 3)$ or $y - 2 = 3(x + 4)$
(-2, -5) & (-1, 3) $m = \frac{3 - (-5)}{-1 - (-2)} = \frac{8}{-1} = -8$ $y + 5 = 8(x + 2)$ or $y - 3 = 8(x + 1)$	(4, 1) & (3, -1) $m = \frac{-1 - 1}{3 - 4} = \frac{-2}{-1} = 2$ $y - 1 = 2(x - 4)$ or $y + 1 = 2(x - 3)$	(-2, 3) & (-1, 2) $m = \frac{2 - 3}{-1 - (-2)} = \frac{-1}{-1} = 1$ $y - 3 = 1(x + 2)$ or $y + 3 = 1(x + 4)$
(-1, -2) & (1, -8) $m = \frac{-8 - (-2)}{1 - (-1)} = \frac{-6}{2} = -3$ $y + 2 = -3(x + 1)$ or $y + 3 = -3(x - 1)$	(1, -5) & (4, -1) $m = \frac{-1 - (-5)}{4 - 1} = \frac{4}{3}$ $y + 5 = \frac{4}{3}(x - 1)$ or $y + 1 = \frac{4}{3}(x - 4)$	(-4, 1) & (-3, 3) $m = \frac{3 - 1}{-3 - (-4)} = \frac{2}{-1} = -2$ $y - 1 = 2(x + 4)$ or $y - 3 = 2(x + 3)$
(-1, 3) & (2, -5) $m = \frac{-5 - 3}{2 - (-1)} = \frac{-8}{3}$ $y - 3 = -\frac{8}{3}(x + 1)$ or $y + 5 = -\frac{8}{3}(x - 2)$	(-3, -1) & (4, -3) $m = \frac{-3 - (-1)}{4 - (-3)} = \frac{-2}{7}$ $y + 1 = -\frac{2}{7}(x + 3)$ or $y + 3 = -\frac{2}{7}(x - 4)$	(-1, -1) & (4, -3) $m = \frac{-3 - (-1)}{4 - (-1)} = \frac{-2}{5}$ $y + 1 = -\frac{2}{5}(x + 3)$ or $y + 3 = -\frac{2}{5}(x - 4)$
(-3, 2) & (-1, -6) $m = \frac{-6 - 2}{-1 - (-3)} = \frac{-8}{2} = -4$	(-3, 2) & (-1, -6) $m = \frac{-6 - 2}{-1 - (-3)} = \frac{-8}{2} = -4$	(-3, 2) & (-1, -6) $m = \frac{-6 - 2}{-1 - (-3)} = \frac{-8}{2} = -4$

# Writing in Point Slope Form from 2 Points Choice Board includes:

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

## Writing in Point-Slope Form from 2 Points

Directions: Given two points, write the equation in point-slope form. Choose \_\_\_\_\_ problems from each column. Show your work in the boxes.

$(2, -2) & (1, -3)$	$(4, 5) & (2, 3)$	$(-3, -4) & (-1, 2)$
$(-2, -5) & (-1, 3)$	$(-1) & (3, -1)$	$(-2, 3) & (-5, -3)$
$(-1, -2) & (1, -8)$	$(1, -5) & (4, -1)$	$(-4, -4) & (2, 5)$
$(-1, 2)$		

- ✓ printable worksheet
- ✓ a detailed answer key
- ✓ 3 columns with 5 questions in each - 15 question total
- ✓ Spot to assign how many problems students need to complete

# Writing in Point Slope Form from 2 Points Choice Board

standards covered:

**CCSS:** HSA-CED.A.2

**TEKs:** A1.2.B

**VA SOLs:** E1.A.6.b

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

**ANSWER KEY**

## Writing in Point-Slope Form from 2 Points

Directions: Given two points, write the equation in point-slope form. Choose \_\_\_\_\_ problems from each column. Show your work in the boxes.

$(2, -2) \text{ \& } (1, -3)$ $m = \frac{-3 - (-2)}{1 - 2} = \frac{-1}{-1} = 1$ $y + 2 = 1(x - 2)$ or $y + 3 = 1(x - 1)$	$(4, 5) \text{ \& } (2, 3)$ $m = \frac{3 - 5}{2 - 4} = \frac{-2}{-2} = 1$ $y - 5 = 1(x - 4)$ or $y - 3 = 1(x - 2)$	$(-3, -4) \text{ \& } (-1, 2)$ $m = \frac{2 - (-4)}{-1 - (-3)} = \frac{6}{2} = 3$ $y + 4 = 3(x + 3)$ or $y - 2 = 3(x + 1)$
$(-2, -5) \text{ \& } (-1, 3)$ $m = \frac{3 - (-5)}{-1 - (-2)} = \frac{8}{1} = 8$ $y + 5 = 8(x + 2)$ or $y - 3 = 8(x + 1)$	$(4, 1) \text{ \& } (3, -1)$ $m = \frac{-1 - 1}{3 - 4} = \frac{-2}{-1} = 2$ $y - 1 = 2(x - 4)$ or $y + 1 = 2(x - 3)$	$(-2, 3) \text{ \& } (-5, -3)$ $m = \frac{-3 - 3}{-5 - (-2)} = \frac{-6}{-3} = 2$ $y - 3 = 2(x + 2)$ or $y + 3 = 2(x + 5)$
$(-1, -2) \text{ \& } (1, -8)$ $m = \frac{-8 - (-2)}{1 - (-1)} = \frac{-6}{2} = -3$ $y + 2 = -3(x + 1)$ or $y + 8 = -3(x - 1)$	$(1, -5) \text{ \& } (4, -1)$ $m = \frac{-1 - (-5)}{4 - 1} = \frac{4}{3}$ $y + 5 = \frac{4}{3}(x - 1)$ or $y - 1 = \frac{4}{3}(x - 4)$	$(-4, -4) \text{ \& } (2, 5)$ $m = \frac{5 - (-4)}{2 - (-4)} = \frac{9}{6} = \frac{3}{2}$ $y + 4 = \frac{3}{2}(x + 4)$ or $y - 5 = \frac{3}{2}(x - 2)$

# how the choice board resource works

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

*Writing in Point-Slope Form from 2 Points*

Directions: Given two points, write the equation in point-slope form. Choose \_\_\_\_\_ problems from each column. Show your work in the boxes.

(2, -2) & (1, -3)	(4, 5) & (2, 3)	(-3, -4) & (-1, 2)
(-2, -5) & (-1, 3)	(4, 1) & (3, -1)	(-2, 3) & (-5, -3)
(-1, -2) & (1, -8)	(1, -5) & (4, -1)	(-4, -4) & (2, 5)
(-1, 3) & (2, -5)	(-3, -1) & (4, -3)	(-3, 3) & (-2, 1)

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

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 write linear equations in point-slope form given 2 points.

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

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

Name: \_\_\_\_\_ **ANSWER KEY** \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

### Writing in Point-Slope Form from 2 Points

Directions: Given two points, write the equation in point-slope form. Choose \_\_\_\_ problems from each column. Show your work in the boxes.

<p>(2, -2) &amp; (1, -3)</p> $m = \frac{-3 - (-2)}{1 - 2} = \frac{-1}{-1} = 1$ <p><math>y + 2 = 1(x - 2)</math> or <math>y + 3 = 1(x - 1)</math></p>	<p>(4, 5) &amp; (2, 3)</p> $m = \frac{3 - 5}{2 - 4} = \frac{-2}{-2} = 1$ <p><math>y - 5 = 1(x - 4)</math> or <math>y - 3 = 1(x - 2)</math></p>	<p>(-3, -4) &amp; (-1, 2)</p> $m = \frac{2 - (-4)}{-1 - (-3)} = \frac{6}{2} = 3$ <p><math>y + 4 = 3(x + 3)</math> or <math>y - 2 = 3(x + 1)</math></p>									
<p>(-2, -5) &amp; (-1, 3)</p> $m = \frac{3 - (-5)}{-1 - (-2)} = \frac{8}{-1} = -8$ <p><math>y + 5 = 8(x + 2)</math> or <math>y - 3 = 8(x + 1)</math></p>	<p>Name: _____ Date: _____ Period: _____</p> <h3>Writing in Point-Slope Form from 2 Points</h3> <p>Directions: Given two points, write the equation in point-slope form. Choose ____ problems from each column. Show your work in the boxes.</p> <table border="1"> <tbody> <tr> <td>(2, -2) &amp; (1, -3)</td> <td>(4, 5) &amp; (2, 3)</td> <td>(-3, -4) &amp; (-1, 2)</td> </tr> <tr> <td>(-2, -5) &amp; (-1, 3)</td> <td>(4, 1) &amp; (3, -1)</td> <td>(-2, 3) &amp; (-5, -3)</td> </tr> <tr> <td>(-1, -2) &amp; (1, -8)</td> <td>(1, -5) &amp; (4, -1)</td> <td>(-4, -4) &amp; (2, 5)</td> </tr> </tbody> </table>		(2, -2) & (1, -3)	(4, 5) & (2, 3)	(-3, -4) & (-1, 2)	(-2, -5) & (-1, 3)	(4, 1) & (3, -1)	(-2, 3) & (-5, -3)	(-1, -2) & (1, -8)	(1, -5) & (4, -1)	(-4, -4) & (2, 5)
(2, -2) & (1, -3)	(4, 5) & (2, 3)	(-3, -4) & (-1, 2)									
(-2, -5) & (-1, 3)	(4, 1) & (3, -1)	(-2, 3) & (-5, -3)									
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<p>(-1, -2) &amp; (1, -8)</p> $m = \frac{-8 - (-2)}{1 - (-1)} = \frac{-6}{2} = -3$ <p><math>y + 2 = -3(x + 1)</math> or <math>y + 8 = -3(x - 1)</math></p>											
<p>(-1, 3) &amp; (2, -5)</p> $m = \frac{-5 - 3}{2 - (-1)} = \frac{-8}{3}$ <p><math>y - 3 = -\frac{8}{3}(x + 1)</math> or <math>y + 5 = -\frac{8}{3}(x - 2)</math></p>											
<p>(-1, -1) &amp; (4, 3)</p> $m = \frac{3 - (-1)}{4 - (-1)} = \frac{4}{5}$ <p><math>y + 1 = \frac{4}{5}(x + 1)</math> or <math>y = \frac{4}{5}(x + 1) - 1</math></p>											

You may also enjoy ...

## GRAPHING IN POINT-SLOPE FORM

collaborative Tessellation

Student work bulletin board

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## WRITING IN POINT-SLOPE FORM REVIEW

#	Question	Answer
1	$(-1, -1)$ & $m = -3/2$	
2	$(3, -5)$ & $m = -2/3$	
3	$(4, 4)$ & $(1, -2)$	
4	$(5, 5)$ & $m = 3/4$	
5	$(5, -1)$ & $m = 2$	
6	$(-2, 3)$ & $(-3, -3)$	
7	$(-2, 5)$ & $m = -4$	
8	$(3, 1)$ & $m = -1/3$	
9	$(-4, -1)$ & $(4, -4)$	
10	$(2, 6)$ & $m = 2/5$	
11	$(-1, -2)$ & $m = 4$	
12	$(1, -4)$ & $(2, -2)$	

Self-Checking

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## WRITING LINEAR EQUATIONS POINT SLOPE FORM CHOICE BOARD

Digital & Printable

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check it out!

**Answer Key**  
Name: \_\_\_\_\_ Date: \_\_\_\_\_  
**ADDING & SUBTRACTING RATIONAL EXPRESSIONS**  
Directions: Add or subtract the rational expressions. Show your work.

**Solving Systems of Equations**  
Date: \_\_\_\_\_  
Solve systems of equations using substitution or elimination. Check your solution.  
2.  $2x - 6y = -18$   
 $x = 3y - 9$   
4.  $2x + 6y = -1$   
 $y = -2x + 3$

**Answer Key**  
Date: \_\_\_\_\_  
**Solving Systems of Equations**  
Solve systems of equations using substitution or elimination. Check your solution.  
2.  $2x - 6y = -18$   
 $x = 3y - 9$   
 $2(3y - 9) - 4y = -18$   
 $6y - 18 - 4y = -18$   
 $-18 = -18$   
infinitely many solutions  
 $y = 2 + 5$   
 $y = 7$   
 $(2, 7)$

**Multiplying & Dividing Rational Expressions**  
Date: \_\_\_\_\_  
Directions: Multiply or divide the rational expressions. Show your work.

**Rational Expression Operations - Addition & Subtraction**  
Directions: Answer each question and type the question number with the matching answer in the answer column to the right.

#	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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