

keep scrolling to  
get a sneak peek!

Help your Algebra 1 students  
practice **writing linear  
equations in standard form  
from a point & slope**. Your  
students will benefit from being  
given choice when it comes to  
how they want to practice math!

# STANDARD FORM FROM A POINT & SLOPE CHOICE BOARD

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

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

*Standard Form from a Point & Slope*  
Directions: Write the equation in standard form given a point and slope. Choose \_\_\_\_\_  
each column. Show your work in the boxes.

*Writing in Standard Form from a Point & Slope*  
Directions: Write the equation in standard form given a point and slope. Choose \_\_\_\_\_  
problems from each column. Show your work in the boxes.

(5, -1) & $m = 2$	(-2, 6) & $m = 1$	(4, 0) & $m = 1$ $0 = 1(4) + b$ $0 = 4 + b$ $-4 - 4$ $-4 = b$ $y = x - 4$ $-x - x$ $-x + y = -4$	(5, -1) & $m = 2$ $-1 = 2(5) + b$ $-1 = 10 + b$ $-10 - 10$ $-11 = b$ $y = 2x - 11$ $-2x - 2x$ $-2x + y = -11$
(2, 1) & $m = 6$	(1, -2) & $m = 2$	(-7, 8) & $m = -3$ $8 = -3(-7) + b$ $8 = 21 + b$ $-21 - 21$ $-13 = b$ $y = -3x - 13$ $+3x + 3x$ $3x + y = -13$	(2, 1) & $m = 6$ $1 = 6(2) + b$ $1 = 12 + b$ $-12 - 12$ $-11 = b$ $y = 6x - 11$ $-6x - 6x$ $-6x + y = -11$
(4, -3) & $m = 1/4$	(-15, -4) & $m =$	(4, 3) & $m = 7$ $3 = 7(4) + b$ $3 = 28 + b$ $-28 - 28$ $-25 = b$ $y = 7x - 25$ $-7x - 7x$ $-7x + y = -25$	(4, -3) & $m =$ $-3 = \frac{1}{4}(4) + b$ $-3 = 1 + b$ $-4 - 4$ $-4 = b$ $y = x - 4$ $-x - x$ $-x + y = -4$

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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 Linear Standard Form Point & Slope Choice Board

**Writing in Standard Form from a Point & Slope**  
Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_  
Directions: Write the equation in standard form given a point and slope. Choose problems from each column. Show your work in the boxes.

(4, 0) & m = 1	(5, -1) & m = 2
(-7, 8) & m = -3	(2, 1) & m = 6
(4, 3) & m = 7	(4, -3) & m = 1/4
(-2, 3) & m = -3/2	(9, -10) & m = -4
(7, -5) & m = -2/7	(-5, 0) & m = -1/5

**ANSWER KEY**

**Writing in Standard Form from a Point & Slope**  
Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_  
Directions: Write the equation in standard form given a point and slope. Choose problems from each column. Show your work in the boxes.

(4, 0) & m = 1 $0 = 1(4) + b$ $0 = 4 + b$ $-4 = b$ $-x + y = -4$	(5, -1) & m = 2 $-1 = 2(5) + b$ $-1 = 10 + b$ $-10 = b$ $y = 2x - 11$ $-2x - 2x$ $-4x + y = -11$
(-7, 8) & m = -3 $8 = -3(-7) + b$ $8 = 21 + b$ $-21 = b$ $y = -3x - 13$ $+3x + 3x$ $3x + y = -13$	(2, 1) & m = 6 $1 = 6(2) + b$ $1 = 12 + b$ $-12 = b$ $y = 6x - 11$ $-6x - 6x$ $-6x + y = -11$
(4, 3) & m = 7 $3 = 7(4) + b$ $3 = 28 + b$ $-28 = b$ $y = 7x - 25$ $-7x - 7x$ $-7x + y = -25$	(4, -3) & m = 1/4 $-3 = \frac{1}{4}(4) + b$ $-3 = 1 + b$ $-4 = b$ $y = \frac{1}{4}x - 4$ $-\frac{1}{4}x - \frac{1}{4}x$ $4(\frac{1}{4}x + y = -4)$ $-x + 4y = -16$
(-2, 3) & m = -3/2 $3 = -\frac{3}{2}(-2) + b$ $3 = 3 + b$ $-3 = b$ $y = -\frac{3}{2}x + 3$ $+\frac{3}{2}x + \frac{3}{2}x$ $2(\frac{3}{2}x + y = 0)$ $3x + 2y = 0$	(9, -10) & m = -4 $-10 = -4(9) + b$ $-10 = -36 + b$ $+36 = b$ $y = -4x + 26$ $+4x + 4x$ $4x + y = 26$

# Writing Linear Standard Form from Point & Slope Choice Board *includes:*

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

*Writing in Standard Form from a Point & Slope*

Directions: Write the equation in standard form given a point and slope. Choose problems from each column. Show your work in the boxes.

$(4, 0) & m = 1$	$(5, -1) & m = 2$	$(-2, 6) & m = 1$
$(-7, 8) & m = -3$	$(2, 1) & m = 6$	$(1, -2) & m = 2$
$(4, 3) & m = 7$	$(4, -3) & m = 1/4$	$(-15, -4) & m = 1/2$
$(-2, 2) & m = 1$		

- ✓ 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 Linear Standard Form from Point & Slope Choice Board

standards covered:

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

**TEKs:** A1.2.B, A1.2.C

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

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

**ANSWER KEY**

## Writing in Standard Form from a Point & Slope

Directions: Write the equation in standard form given a point and slope. Choose problems from each column. Show your work in the boxes.

$(4, 0) & m = 1$ $0 = 1(4) + b$ $0 = 4 + b$ $-4 -4$ $-4 = b$ $y = x - 4$ $-x -x$ $-x + y = -4$	$(5, -1) & m = 2$ $-1 = 2(5) + b$ $-1 = 10 + b$ $-10 -10$ $-11 = b$ $y = 2x - 11$ $-2x -2x$ $-2x + y = -11$	$(-2, 6) & m = 1$ $6 = 1(-2) + b$ $6 = -2 + b$ $+2 +2$ $8 = b$ $y = x + 8$ $-x -x$ $-x + y = 8$
$(-7, 8) & m = -3$ $8 = -3(-7) + b$ $8 = 21 + b$ $-21 -21$ $-13 = b$ $y = -3x - 13$ $+3x +3x$ $3x + y = -13$	$(2, 1) & m = 6$ $1 = 6(2) + b$ $1 = 12 + b$ $-12 -12$ $-11 = b$ $y = 6x - 11$ $-6x -6x$ $-6x + y = -11$	$(1, -2) & m = 2$ $-2 = 2(1) + b$ $-2 = 2 + b$ $-2 -2$ $-4 = b$ $y = 2x - 4$ $-2x -2x$ $-2x + y = -4$
$(4, 3) & m = 7$ $3 = 7(4) + b$ $3 = 28 + b$ $-28 -28$ $-25 = b$ $y = 7x - 25$ $-7x -7x$ $-7x + y = -25$	$(4, -3) & m = 1/4$ $-3 = \frac{1}{4}(4) + b$ $-3 = 1 + b$ $-1 -1$ $-4 = b$ $y = \frac{1}{4}x - 4$ $-x -x$ $-x + y = -4$	$(-15, -4) & m = 1/2$ $-4 = \frac{1}{2}(-15) + b$ $-4 = -\frac{15}{2} + b$

# how the choice board resource works

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

*Writing in Standard Form from a Point & Slope*

Directions: Write the equation in standard form given a point and slope. Choose \_\_\_\_\_ problems from each column. Show your work in the boxes.

$(4, 0) \text{ \& } m = 1$	$(5, -1) \text{ \& } m = 2$	$(-2, 6) \text{ \& } m = 1$
$(-7, 8) \text{ \& } m = -3$	$(2, 1) \text{ \& } m = 6$	$(1, -2) \text{ \& } m = 2$
$(4, 3) \text{ \& } m = 7$	$(4, -3) \text{ \& } m = 1/4$	$(-15, -4) \text{ \& } m = 1/2$
$(-2, 3) \text{ \& } m = -3/2$	$(9, -10) \text{ \& } m = -4$	$(5, 2) \text{ \& } m = 4/9$

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 standard form given a point and slope.

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

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

<p>Name: _____ <b>ANSWER KEY</b> _____ Date: _____ Period: _____</p> <p><i>Writing in Standard Form from a Point &amp; Slope</i></p> <p>Directions: Write the equation in standard form given a point and slope. Choose _____ problems from each column. Show your work in the boxes.</p>		
<p>(4, 0) &amp; m = 1</p> $\begin{aligned} 0 &= 1(4) + b \\ 0 &= 4 + b \\ -4 &-4 \quad y = x - 4 \\ -4 &= b \quad -x \quad -x \\ -x + y &= -4 \end{aligned}$	<p>(5, -1) &amp; m = 2</p> $\begin{aligned} -1 &= 2(5) + b \\ -1 &= 10 + b \\ -10 &-10 \quad y = 2x - 11 \\ -11 &= b \quad -2x \quad -2x \\ -2x + y &= -11 \end{aligned}$	<p>(-2, 6) &amp; m = 1</p> $\begin{aligned} 6 &= 1(-2) + b \\ 6 &= -2 + b \\ +2 &+2 \quad y = x + 8 \\ 8 &= b \quad -x \quad -x \\ -x + y &= 8 \end{aligned}$
<p>(-7, 8) &amp; m = -3</p> $\begin{aligned} 8 &= -3(-7) + b \\ 8 &= 21 + b \\ -21 &-21 \quad y = -3x - 13 \\ -13 &= b \quad +3x \quad +3x \\ 3x + y &= -13 \end{aligned}$	<p>Name: _____ Date: _____ Period: _____</p> <p><i>Writing in Standard Form from a Point &amp; Slope</i></p> <p>Directions: Write the equation in standard form given a point and slope. Choose _____ problems from each column. Show your work in the boxes.</p>	
<p>(4, 3) &amp; m = 7</p> $\begin{aligned} 3 &= 7(4) + b \\ 3 &= 28 + b \\ -28 &-28 \quad y = 7x - 25 \\ -25 &= b \quad -7x \quad -7x \\ -7x + y &= -25 \end{aligned}$	<p>(4, 0) &amp; m = 1</p>	<p>(5, -1) &amp; m = 2</p>
<p>(-2, 3) &amp; m = -3/2</p> $\begin{aligned} 3 &= -\frac{3}{2}(-2) + b \\ 3 &= 3 + b \\ -3 &-3 \quad y = -\frac{3}{2}x \\ 0 &= b \quad +\frac{3}{2}x \quad +\frac{3}{2}x \\ 2(\frac{3}{2}x + y = 0) \\ 3x + 2y &= 0 \end{aligned}$	<p>(-7, 8) &amp; m = -3</p>	<p>(2, 1) &amp; m = 6</p>
<p>(7, -5) &amp; m = -2/7</p> $\begin{aligned} -5 &= -\frac{2}{7}(7) + b \\ -5 &= -2 + b \\ +2 &+2 \quad y = -\frac{2}{7}x - 3 \\ -3 &= b \quad +\frac{2}{7}x \quad +\frac{2}{7}x \\ -\frac{2}{7}(2x + 11) &= -3 \end{aligned}$	<p>(4, 3) &amp; m = 7</p>	<p>(1, -2) &amp; m = 2</p>
	<p>(4, -3) &amp; m = 1/4</p>	<p>(-15, -4) &amp; m = 1/2</p>

You may also enjoy ...

# GRAPHING IN STANDARD FORM

collaborative tessellation

STANDARD FORM

Graph the given linear equation on the coordinate plane. Write the x- and y-intercepts of the line.

When done, cut out your piece.

1

2

3

4

5

6

7

8

9

10

11

12

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student work bulletin board

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# WRITING IN STANDARD FORM

Digital & Print Activity Pack

7 Activities

ANSWER KEY

Writing in Standard Form from 2 Points

Directions: Write the equation of the line in standard form. Choose the correct column. Show your work in the boxes.

Question	Answer
1. (2, 4) & (5, 8)	$y - 4 = 4(x - 2)$
2. (1, 4) & (2, 5)	$y - 4 = 1(x - 1)$
3. (2, 2) & (1, -2)	$y - 2 = -4(x - 2)$
4. (6, 2) & m = 4/5	$y - 2 = \frac{4}{5}(x - 6)$
5. (2, -2) & (2, 3)	$x = 2$
6. (2, 5) & m = -7/2	$y - 5 = -\frac{7}{2}(x - 2)$
7. (3, -3) & (5, 4)	$y - (-3) = \frac{7}{2}(x - 3)$
8. (4, -3) & (3, -1)	$y - (-3) = 2(x - 4)$
9. (5, 0) & (2, 4)	$y - 0 = -\frac{4}{3}(x - 5)$
10. (2, -7) & m = -3/2	$y - (-7) = -\frac{3}{2}(x - 2)$
11. (5, 3) & (3, 3)	$x = 3$
12. (-3, 3) & (4, 2)	$y - 3 = -\frac{1}{7}(x - (-3))$

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# CHOICE BOARDS BUNDLE

Writing Linear Functions

Algebra I

Point-Slope Form

Given the point and slope, write the equation of the line in point-slope form. Show your work.

Slope-Intercept Form

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

Standard Form

Directions: Write the equation of each graph in standard form from each column.

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# Free Algebra Activities!

When you join my email list, I'll send you a free Algebra print & digital self-checking activities. There is an Algebra 1 and Algebra 2 version!

You'll also be getting exclusive freebies and content to help your Algebra students be successful this school year!

check it out!

The collage features several algebra worksheets with titles like "ANSWER KEY", "ADDING & SUBTRACTING RATIONAL EXPRESSIONS", "MULTIPLYING & DIVIDING RATIONAL EXPRESSIONS", and "SOLVING SYSTEMS OF EQUATIONS". The digital tablet in the foreground displays a self-checking activity titled "Rational Expression Operations - Addition & Subtraction".

**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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