LEARNING PAPER EVIDENCE

19A-C2 | TWO POINTS TO A LINE EQUATION

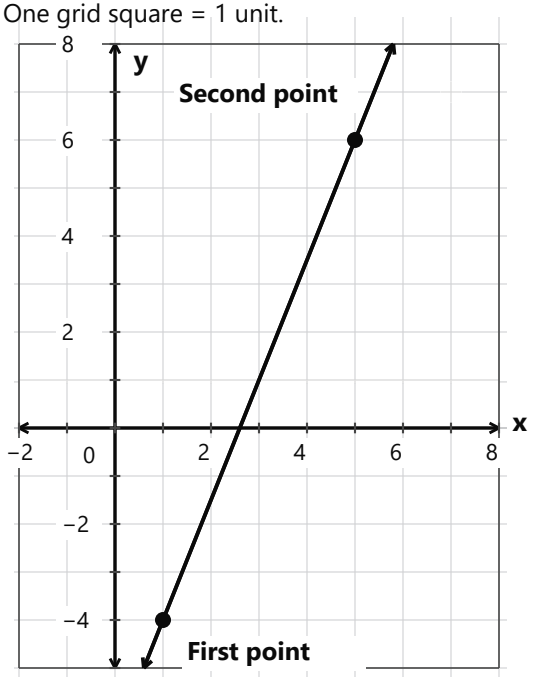
FRONT • Work with your teacher

Writing the equation of a line through two given points

Goal: Find m and b, then write y = mx + b.

1 Read the two marked points

One grid square = 1 unit.



First (x_1, y_1) (____ , ____)

Second (x_2, y_2) (____ , ____)

1 and 2 identify the first and second points.

2 Find the slope m

Second minus first in BOTH rows. Keep each sign.

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{(\ \square\ ) - (\ \square\ )}{(\ \square\ ) - (\ \square\ )} = \frac{\square}{\square} = \square$$

(y_2 over the first box, y_1 over the second box; x_2 under the third box, x_1 under the fourth box)

Subtracting a negative: 6 − (−4) = 6 + 4. Simplify the fraction.

3 Find the y-intercept b

Use BOTH coordinates from the FIRST point in y = mx + b.

A point on the line makes the equation true. Only b is unknown.

y from the point		**slope m**		**x from the point**	
_____	=	_____	(	_____	) + b

Multiply. Subtract the same amount from both sides to find b.

_____

_____

_____

Fraction reminder

$$-4 = \frac{-8}{2}$$

4 Write the equation

_____

Keep x and y as letters. Replace m and b with numbers.

Check the OTHER point (5, 6)

_____

TOPIC ID: **19A-C2**	TOPIC TITLE: Two points to a line equation		
NAME:		BLOCK:	DATE: 09/21/2026

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19A-C2 | ALEKS PRACTICE

BACK • Write your work before entering the equation.

Use any two distinct points on the line. They do not have to be one unit apart.

ALEKS PROBLEM 1

Question number: _____

Read the marked points or copy the given points.

1 RECORD TWO POINTS

First (x_1, y_1): (_____ , _____) Second (x_2, y_2): (_____ , _____)

2 FIND THE SLOPE m

Second minus first in BOTH rows.

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{(\ \square\ ) - (\ \square\ )}{(\ \square\ ) - (\ \square\ )}$$

(y_2 over the first box, y_1 over the second box; x_2 under the third box, x_1 under the fourth box)

Simplify the fraction. This is your slope m.

3 FIND b USING ONE COMPLETE POINT

Circle your point: first / second

y from point		slope m		x from point	
_____	=	_____	(	_____	) + b

4 WRITE THE EQUATION

Check the OTHER point:

ALEKS PROBLEM 2

Question number: _____

Read the marked points or copy the given points.

1 RECORD TWO POINTS

First (x_1, y_1): (_____ , _____) Second (x_2, y_2): (_____ , _____)

2 FIND THE SLOPE m

Second minus first in BOTH rows.

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{(\ \square\ ) - (\ \square\ )}{(\ \square\ ) - (\ \square\ )}$$

(y_2 over the first box, y_1 over the second box; x_2 under the third box, x_1 under the fourth box)

Simplify the fraction. This is your slope m.

3 FIND b USING ONE COMPLETE POINT

Circle your point: first / second

y from point		slope m		x from point	
_____	=	_____	(	_____	) + b

4 WRITE THE EQUATION

Check the OTHER point:

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