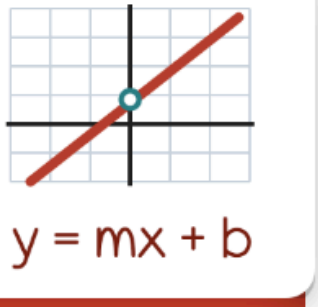
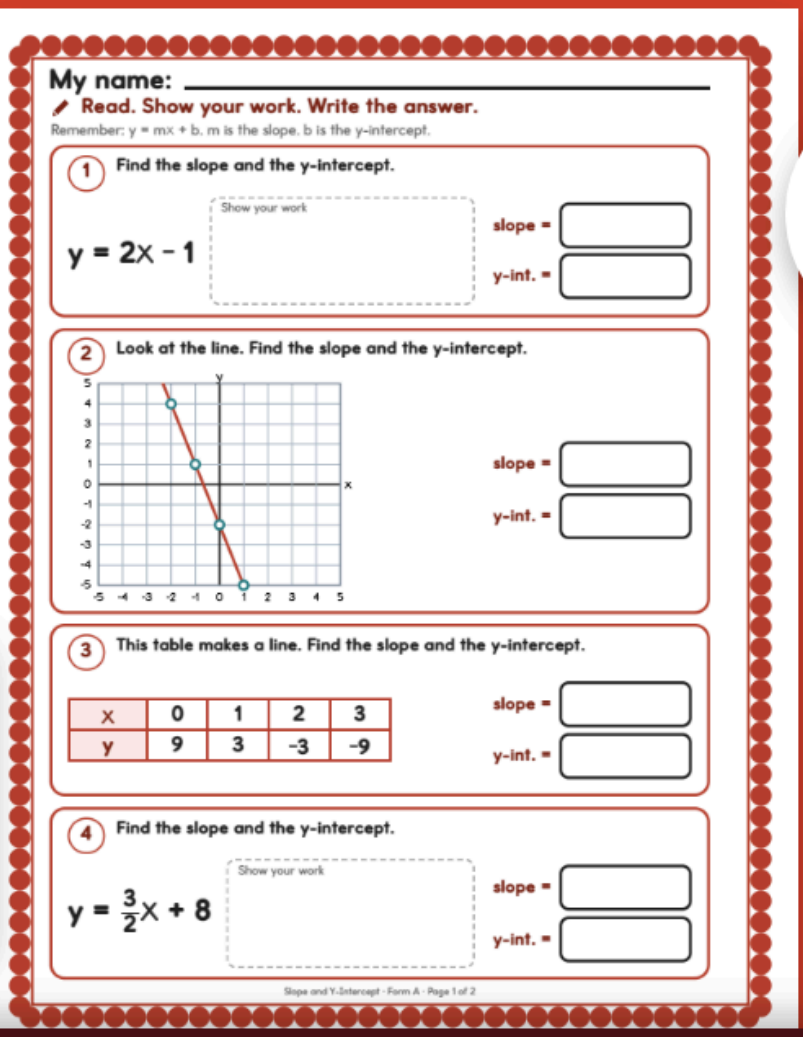
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4 FORMS

GRADES 8-9




My name: _____

Read. Show your work. Write the answer.

Remember: y = mx + b. m is the slope. b is the y-intercept.

1. Find the slope and the y-intercept.

$y = 2x - 1$

Show your work

slope = ____

y-int. = ____

2. Look at the line. Find the slope and the y-intercept.

slope = ____

y-int. = ____

3. This table makes a line. Find the slope and the y-intercept.

x	0	1	2	3
y	9	3	-3	-9

slope = ____

y-int. = ____

4. Find the slope and the y-intercept.

$y = \frac{3}{2}x + 8$

Show your work

slope = ____

y-int. = ____

Slope and Y-Intercept · Form A · Page 1 of 2

SLOPE & Y-INTERCEPT

PROGRESS MONITORING PROBES

Terms of Use

Please read before you print and fill in your first form.

One classroom license

- This file is for one classroom: one teacher, one caseload.
- Please do not share it, post it online, or sell it.
- Extra licenses for a team or a school are available on the product page.

This is a fillable PDF

- Open it in a PDF reader (Adobe Acrobat Reader, Preview, or your browser), click into a line or box, type, and Save As once per student.
- Print one copy of both pages of a form per student per week: the student writes on the form and that same sheet is the one you score.
- It works offline. No account, no subscription, no internet connection needed after you download it.

Student data

Completed pages carry a real student's name and scores. Store, hand over and destroy this file the same way you would any other student record.

Need help?

If a field will not behave, a page will not print the way you expect, or anything here looks wrong, use Ask a Question on the product page before leaving a review. Every question is read, and a fix to the file ships as a free update — re-download it any time from My Purchases.

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PREVIEW

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Binder Cover, Spine Label & Divider Tabs

A binder cover, six divider tabs, and a short setup list.

Binder cover & spine label

Student _____ Case manager _____ School year _____

Goal start date _____ Next review date _____

Cut along the outer edge and use as a binder cover, a folder label, or a clipboard cover for this student's probe folder.

Divider tabs — print and cut

01 Start Here
The six-step routine, one page.

02 The Goal
The written goal, directions, and where forms A–D fit.

03 Probe Forms
The 4 rotating forms, two pages each, one form per week.

04 Graph & Decision
The aim line, the weekly plot, the three-in-a-row rule.

05 Caseload Summary
Every student on this goal, one grid, once a month.

06 Family Update
The note home and the handoff sheet, ready to fill in.

PREVIEW

Before the first probe

- Write the goal from the sample and change every bracket for this student.
- Give the baseline: three forms, three different days, before the first plotted point.
- Share the rotation (A, B, C, D) with anyone else who might give a form.

Preview · Bright Path Sped

Giving and Scoring the Probe

The same way every week, so a change in the score is a change in the student.

Giving the probe

- Say: "Read each problem. Show your work in the box. Write the slope and the y-intercept in the answer boxes."
- Correct: both answer boxes on the problem are right and legible (the story also needs the circled meaning). Your team decides whether partial credit counts and whether the work box is scored. Write that rule on the line below before the baseline.
- Note which kind of problem each miss falls on (the key names it): equation, graph, table or story.
- Untimed. Let the student finish all eight.

What is on every form

- Two student pages, four problems a page, 8 problems in all.
- Three equations, two graphs, two tables and one story, in the same places on every form.
- Four slopes are positive and four are negative, in a different order on each form.
- m is the slope: up or down for each 1 across. b is the y-intercept: where the line crosses the y-axis.

Equations

Problems 1, 4, 7 on every form. y = mx + b: m is the number with x, b is the number added or subtracted. Problem 4 has a fraction for m. Problem 7 writes b first, as in y = 7 - 3x, so the sign of m has to travel with its number.

Graphs

Problems 2, 5. A line on a grid from -5 to 5 with open dots where it crosses grid points. The student counts rise and run between two dots for m and reads where the line crosses the y-axis for b. Problem 5 has a fraction for m.

Tables

Problems 3, 6. Each table is a line. Problem 3 starts at x = 0, so b is in the table. Problem 6 starts at x = 1, so the student finds m first, then works back one step to x = 0. One table on every form has b = 0.

Story

Problem 8. A short story with its equation. The student names m and b, then circles what m or b tells us: the amount at the start or the change each time.

If the student needs the problems read aloud, or other help

Follow the supports in the student's IEP, give them the same way each week, and write them on the goal page so the next person gives the probe the same way.

Notes for whoever gives the probe next (the seat, the supports, anything that helps)

PREVIEW

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My name: _____

Read. Show your work. Write the answer.

Remember: y = mx + b. m is the slope. b is the y-intercept.

1 **Find the slope and the y-intercept.**

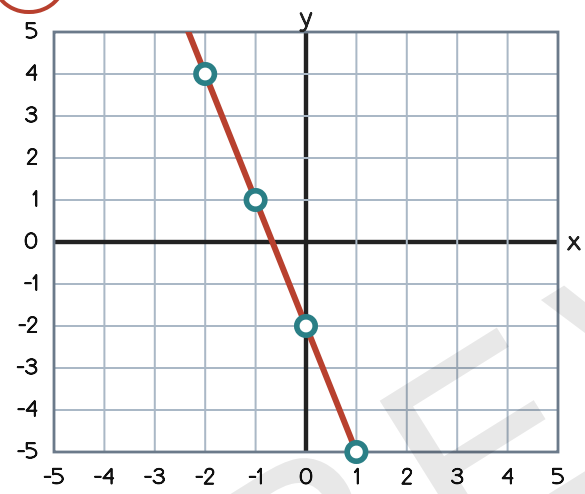
$y = 2x - 1$

Show your work

slope = ____

y-int. = ____

2 **Look at the line. Find the slope and the y-intercept.**



slope = ____

y-int. = ____

3 **This table makes a line. Find the slope and the y-intercept.**

x	0	1	2	3
y	9	3	-3	-9

slope = ____

y-int. = ____

4 **Find the slope and the y-intercept.**

$y = \frac{3}{2}x + 8$

Show your work

slope = ____

y-int. = ____

PREVIEW

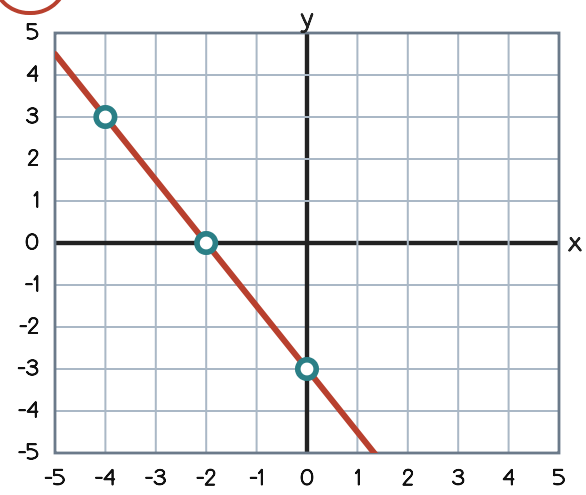
Preview - Bright Path Shed

My name: _____

Read. Show your work. Write the answer.

Remember: y = mx + b. m is the slope. b is the y-intercept.

5 **Look at the line. Find the slope and the y-intercept.**



slope = ☐

y-int. = ☐

6 **This table makes a line. Find the slope. Then find the y-intercept: y when x is 0.**

x	1	2	3	4
y	-3	2	7	12

slope = ☐

y-int. = ☐

7 **Find the slope and the y-intercept.**

$y = 2 + x$

Show your work

slope = ☐

y-int. = ☐

8 **A candle is 12 inches tall. It burns down 2 inches every hour.**

$y = -2x + 12$

y is the inches tall after x hours.

What does the slope tell us? Circle one.

the change each hour **the amount at the start**

slope = ☐

y-int. = ☐

PREVIEW

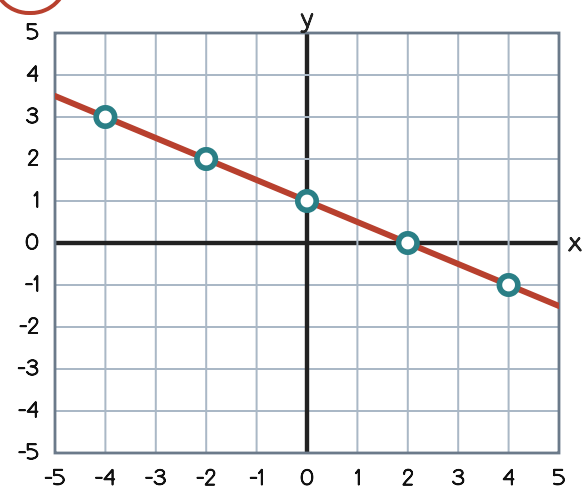
Preview - Bright Path Sped

My name: _____

Read. Show your work. Write the answer.

Remember: y = mx + b. m is the slope. b is the y-intercept.

5 **Look at the line. Find the slope and the y-intercept.**



slope = ☐

y-int. = ☐

6 **This table makes a line. Find the slope. Then find the y-intercept: y when x is 0.**

x	1	2	3	4
y	2	4	6	8

slope = ☐

y-int. = ☐

7 **Find the slope and the y-intercept.**

$y = -6 + 6x$

Show your work

slope = ☐

y-int. = ☐

8 **A tank holds 40 gallons of water. It drains 4 gallons every minute.**

$y = -4x + 40$

y is the gallons of water after x minutes.

What does the y-intercept tell us? Circle one.

the change each minute **the amount at the start**

slope = ☐

y-int. = ☐

PREVIEW

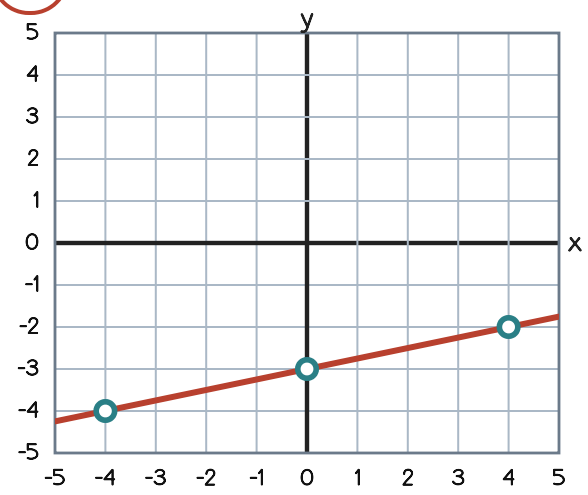
Preview - Bright Path Sped

My name: _____

Read. Show your work. Write the answer.

Remember: y = mx + b. m is the slope. b is the y-intercept.

5 **Look at the line. Find the slope and the y-intercept.**



slope = ☐

y-int. = ☐

6 **This table makes a line. Find the slope. Then find the y-intercept: y when x is 0.**

x	1	2	3	4
y	1	-2	-5	-8

slope = ☐

y-int. = ☐

7 **Find the slope and the y-intercept.**

$y = 9 - 5x$

Show your work

slope = ☐

y-int. = ☐

8 **A plant is 6 centimeters tall. It grows 3 centimeters every week.**

$y = 3x + 6$

y is the centimeters tall after x weeks.

What does the slope tell us? Circle one.

the amount at the start **the change each week**

slope = ☐

y-int. = ☐

PREVIEW

Teacher Notes - Reading the Misses

Which kind of problem is missed, and what the work box shows, tells you what to teach next.

What this probe measures

- Whether a student can name the slope and the y-intercept of a line from its equation, its graph or a table of its points, and can say what they mean in a short story.
- A quick weekly check against a goal you write; not a norm-referenced test, no benchmark score.

The minus sign gets lost

- y = -3x + 7 and y = 7 - 3x are the same line: m = -3, b = 7 in both.
- A student who answers m = 3 (or m = 7) on problem 7 is reading the numbers in the order they are written. Teach: circle the sign in front of the number with x, and keep it.

m and b swapped

- The slope is the number with x. The y-intercept is the number on its own.
- On a graph, b is where the line crosses the y-axis, not the first dot the student sees.

Graphs: the sign and the count

- A line that goes down as you read left to right has a negative slope. A student who counts the rise and the run correctly but writes a positive number needs the picture, not more counting.
- Rise over run: a student who writes run over rise, or counts squares instead of reading between two dots, check the fraction slopes (problems 4 and 5) first.

Tables: where x starts

- Problem 3 starts at x = 0, so b is in the table. Problem 6 starts at x = 1: for example x = 1, 2, 3, 4 gives y = 3, 8, 13, 18, so m = 5, and one step back from 3 is b = -2.
- One table on every form has b = 0 (the line goes through the corner). If that answer is blank, talk about what 0 means as a y-intercept.

Misses that cluster on one kind of problem

- Equations are problems 1, 4, 7; graphs are 2, 5; tables are 3, 6; the story is 8. These positions are the same on all four forms.
- Misses on the story only: the student can find m and b but not say what they tell us. Use the reference page.

Graph-it page (page 19): the points on each panel

- A. y = 2x - 3: (-1, -5), (0, -3), (1, -1), (2, 1), (3, 3), (4, 5)
- B. y = -3x + 2: (-1, 5), (0, 2), (1, -1), (2, -4)
- C. y = (1/2)x + 1: (-4, -1), (-2, 0), (0, 1), (2, 2), (4, 3)
- D. y = -(2/3)x - 1: (-3, 1), (0, -1), (3, -3)

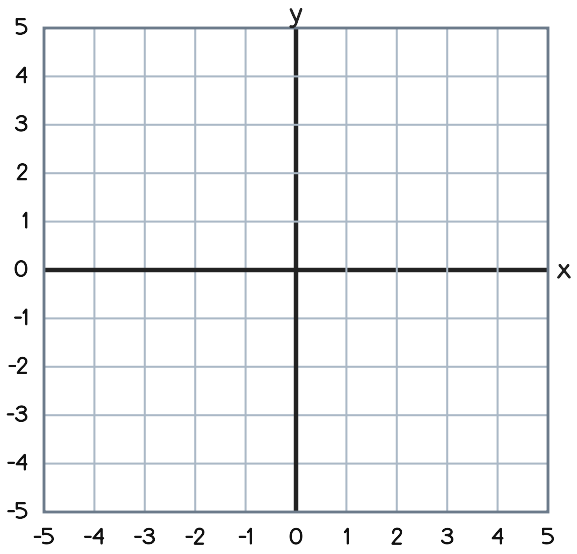
PREVIEW

Preview - Bright Path Shed

My name: _____

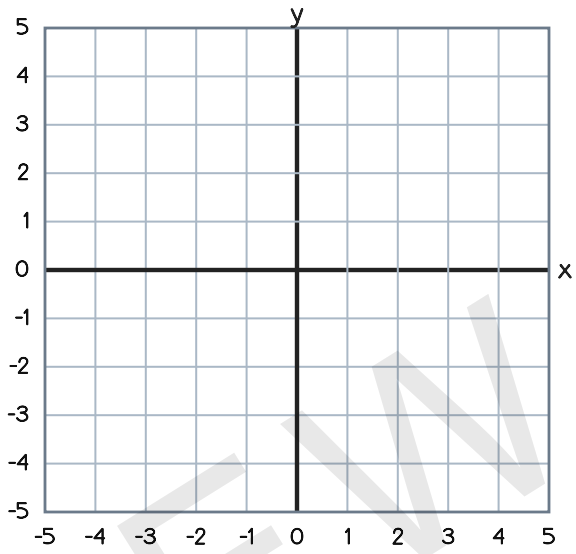
Plot the y-intercept. Use the slope. Draw the line.

A. $y = 2x - 3$



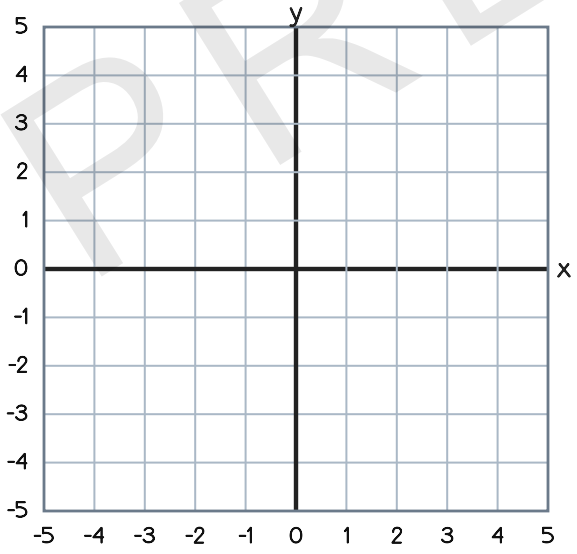
slope = _____ y-int. = _____

B. $y = -3x + 2$



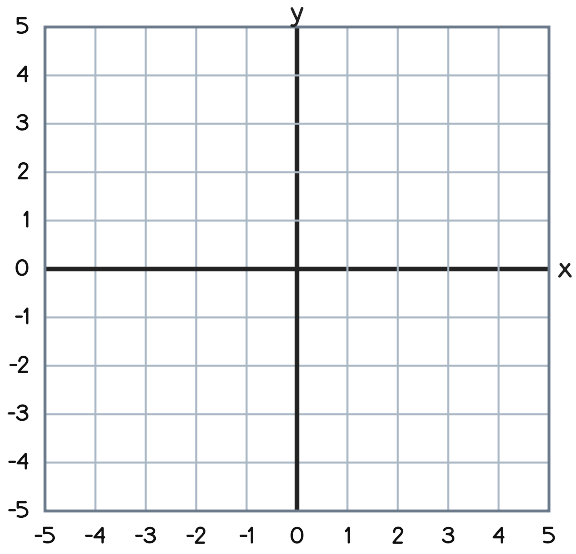
slope = _____ y-int. = _____

C. $y = \frac{1}{2}x + 1$



slope = _____ y-int. = _____

D. $y = -\frac{2}{3}x - 1$



slope = _____ y-int. = _____

PREVIEW

Preview · Bright Path Sped

Slope and Y-Intercept - Caseload Summary

Every student on this goal, on one grid. Eleven rows, eight probes, one decision column.

Teacher / case manager _____ Skill _____ Marking period _____

Student	Base	Crit	P1	P2	P3	P4	P5	P6	P7	P8	Trend	Decision

How to fill it

- One row per student on this skill. Baseline is the median of the first three probes.
- One column per weekly probe; write the score out of 8, not a percent.
- Trend: up, flat or down over the last four probes.
- Decision: keep going, change the teaching, or raise the target.
- Leave a cell blank rather than guess; a gap is more honest than a filled-in score.

What it is for

Grouping. Rows that are flat together are a group; a row that is flat alone is a different question. Take this page to the data meeting instead of ten folders.

PREVIEW

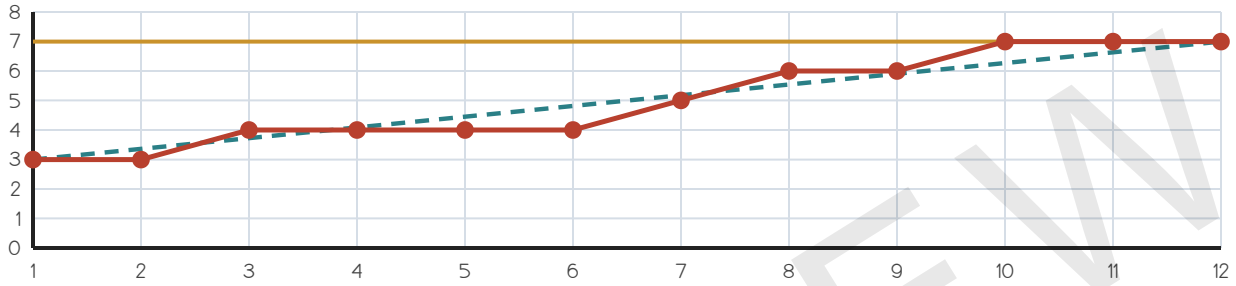
A Filled-In Data Log (Invented Student)

Devon is invented. Twelve weekly probes, the aim line, the change three low points forced, and the criterion being met.

The goal, as written for Devon, ninth grade (invented)

By November 20, when given 8 slope and y-intercept problems (equations, graphs, tables and a story), Devon will name the slope and the y-intercept on 7 of 8 problems on 3 consecutive weekly probes, as measured by teacher-scored slope and y-intercept probes (forms A–D).

Devon's graph (invented): dots are the weekly scores, dashed is the aim line, gold is the criterion of 7



#	Date	Form	Correct	Errors	Graphed	Notes
1	9/8	A	3	5	3	baseline
2	9/9	B	3	5	3	baseline
3	9/10	C	4	4	4	baseline (median of 3, 3, 4 = 3)
4	9/17	D	4	4	4	dropped the minus sign on y = 7 - 3x
5	9/24	A	4	4	4	same: sign lost when b is written first
6	10/1	B	4	4	4	3 under the aim line: circle the minus sign first
7	10/8	C	5	3	5	slope sign now right
8	10/15	D	6	2	6	tables: used y at x = 1 as b
9	10/22	A	6	2	6	graphs: counted down as negative
10	10/29	B	7	1	7	criterion score, first time
11	11/5	C	7	1	7	second in a row at 7
12	11/12	D	7	1	7	third in a row: goal met

How to read the log

- Baseline was the median of three forms on three days: 3, 3, 4, so 3. Not the average, not the best.
- The aim line runs from 3 at probe 1 to 7 at probe 12. Probes 4, 5 and 6 (4, 4, 4) sat under it: three in a row, so the teaching changed and the change is written on the row.
- The notes name what the misses looked like: the minus sign was dropped when b came first. A score alone would not have said that.
- Criterion was met on probes 10, 11 and 12 (7, 7, 7): three in a row at 7 of 8 or better.

The progress report sentence this log produces

On weekly slope and y-intercept probes (8 problems, untimed), Devon scored 3 of 8 at baseline and 7, 7 and 7 of 8 on the last three probes, meeting the criterion of 7 of 8 on 3 consecutive probes.

PREVIEW