

Combining Like Terms Timed Progress Probes

SECTION 2 · FOUR TIMED FORMS

LIKE TERMS FLUENCY PROBES

FORM A Combining Like Terms — Form A

My name: _____ Date (optional): _____

 Combine the like terms. Write the simplified expression in the box.
Go as fast as you can!

One-Variable Terms		Two-Variable Terms	
1	$7y - 3y$ =	7	$5n + 1b + 5n$ =
2	$7y - 4y$ =	8	$1a + 4y + 8a$ =
3	$5t + 3t$ =	9	$4a + 4n - 3a$ =
4	$2b + 9b$ =	10	$9b + 3x + 8b$ =
5	$8t - 4t$ =	11	$4t + 4n - 3t$ =
6	$5n + 6n$ =	12	$3b + 5n - 2b$ =

Combining Like Terms Fluency, Timed Progress Monitoring Probes

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✦ BRIGHT PATH SPED

Combining Like Terms Fluency — Goal and Directions

Like Terms Fluency Probes

For one skill. Timed; score is speed and accuracy together — expressions correct per

Combining-like-terms expressions in writing, under a fixed, team-set time limit. Four

expressions each: six one-variable terms ($ax + bx$, $ax - bx$) and six two-variable terms (ax

variable's term carries through unchanged. The score is speed and accuracy together —

PCPM) — never accuracy alone.

EDIT EVERY BRACKET TO FIT THE STUDENT

[2]-minute timed combining-like-terms probe (one- and two-variable terms,

ty simplify [6] expressions per minute with at least [80] percent accuracy on [3]

is measured by teacher-scored Combining Like Terms Fluency probes (forms A-

CRITERION (PCPM, AND ACCURACY PERCENT, TOGETHER)

SUPPORT) ON ____ OF ____ CONSECUTIVE PROBES

DS OF THE PROBE) AS MEASURED BY (COMBINING LIKE TERMS FLUENCY

PROBES, FORMS A-D, PAGE 10-13)

ON THREE

LIKE THE

MEDIAN

PCPM

(THE

BASLINE)

BENCHMARKS TOWARD THE GOAL				
BENCHMARK	TARGET DATE	TARGET PCPM / ACCURACY	ACTUAL	MET?
1				
2				
3				

"Combine the like terms in each problem. Write the simplified expression in

ing." Hand the student the form and a pencil. Start the timer.

uring the probe. Stop at the time limit, even mid-item, and circle the last

item at a time: coefficient and variable(s) must match the key — term

x). PCPM = problems correct + seconds $\times$ 60, rounded.

accuracy to clear together — speed with the wrong terms combined is not

CEPTED

Probes

WHAT THE ERRORS SAY TO RETEACH (CARRY OVER FROM THE LOG)

Page 8 of 23

✦ BRIGHT PATH SPED

✦ BRIGHT PATH SPED

What Is Inside, and Where

23 pages, one skill, start to finish: no norm-referenced score, no fixed fluency cutoff.

Before you begin

PAGE 4



Start Here —
Three Steps
START HERE

4

01 Set Up

PAGES 6–8



Binder Cover and
Divider Tabs
SETUP

6



How This Pack
Works
REFERENCE

7



Combining Like
Terms Fluency —
Goal and
Directions
GOAL

8

02 Four Timed Forms

PAGES 10–14



Combining Like
Terms — Form A
FORM A

10



Combining Like
Terms — Form B
FORM B

11



Combining Like
Terms — Form C
FORM C

12



Combining Like
Terms — Form D
FORM D

13



Scoring Keys —
Forms A–D
REFERENCE

14

03 Track, Report and Share

PAGES 16–22



Combining Like
Terms Fluency —
Data Log and
Graph
TRACKER

16



Quick-Response
Observation
Checklist
CHECKLIST

17



Caseload
Summary
ROSTER

18



Quick Reference
for a Second Adult
NOTES

19



Family Update —
This Skill's
Progress
NOTES

20



Progress Note
Phrase Bank
REFERENCE

21



A Filled-In Data
Log (Invented
Student)
EXAMPLE

22

Reading the tags: **Setup** is typed once, before the first probe; **Goal** is the sample and the six-part frame; **Form A–D** are the four student practice pages; **Reference** is the shared scoring keys and the phrase bank; **Tracker** rolls several weeks onto one page; **Checklist** is marked during or right after a probe; **Roster** puts a whole caseload on one grid; **Notes** is ready to send or read back to a family or a second adult; **Example** is the worked, invented sample.

Start Here — Three Steps

Ninety seconds of reading; the weekly routine takes about five.



1

Baseline, then write the goal

Give Forms A, B and C on three different days at the same time limit; the middle PCPM (problems correct per minute) score is the baseline (page 8).

Write the goal from the six-part frame, starting from the sample and changing every bracket to fit the student.



2

Probe once a week, timed

Rotate the forms (A, B, C, D, A...), never the same one two weeks running. Every form is twelve problems; the time limit, not the sheet, decides when the probe ends.

Score against the keys page (page 14) and log the same day (page 16); the log turns the raw count and time into problems correct per minute.



3

Watch, decide, report, share

The quick-response checklist (page 17) notes whether terms were matched correctly or every coefficient was summed regardless of variable, and gives the team a place to write its own call — never a cutoff this file sets.

The family update (page 20) and the phrase bank (page 21) turn the log into a note without a separate write-up.

WHAT THIS FILE IS

A fillable PDF. The goal page, the log, the checklist, the caseload page, the second-adult reference and the organizer are type-in; the four student practice pages and the scoring-keys page print (a child answers in pencil, by hand).

WHAT THIS FILE IS NOT

Not a Google Sheets file, a Google Doc or an Excel workbook, and not a norm-referenced test. It carries no fixed fluency benchmark score — your team decides what fluent enough means for this student, from the baseline and the IEP.

WHY EVERY TWO-VARIABLE PROBLEM REQUIRES THE RULE

Every two-variable item carries a second, different variable's term that must ride through unchanged — adding every coefficient together without regard to variable gives a different, genuinely wrong answer every time, so a rising score reflects the rule being applied, not luck.

CONFIDENTIALITY, IN ONE PARAGRAPH

A filled-in log is a student record. It stays in the data folder, never where another family can see it. Use initials on any page that leaves your hands; the family update carries a first name only.

PRINT AND PREP

- ☐ One clean student copy of each form; the child writes the answer directly on it, in pencil.
- ☐ A stopwatch or phone timer; the time limit is written on the goal page.
- ☐ The caseload page prints once a month.

IF SOMETHING DOES NOT WORK

The text disappears when I close it. It was opened in something that fills fields but does not save them. Open it in Acrobat Reader and use Save As.
Anything else — the **Ask a Question** tab on the product page. Every question is read, and a fix to the file is a free update.

GOAL

Combining Like Terms Fluency — Goal and Directions

Goal, baseline and directions for one skill. Timed; score is speed and accuracy together — expressions correct per minute (PCPM).

The student simplifies combining-like-terms expressions in writing, under a fixed, team-set time limit. Four equivalent forms, twelve expressions each: six one-variable terms ($ax + bx$, $ax - bx$) and six two-variable terms ($ax + cy \pm bx$), where a second variable's term carries through unchanged. The score is speed and accuracy together — expressions correct per minute (PCPM) — never accuracy alone.

SAMPLE GOAL — INVENTED; EDIT EVERY BRACKET TO FIT THE STUDENT

By [March 15], when given a [2]-minute timed combining-like-terms probe (one- and two-variable terms, mixed), [Student] will correctly simplify [6] expressions per minute with at least [80] percent accuracy on [3] consecutive weekly probes, as measured by teacher-scored Combining Like Terms Fluency probes (forms A–D, page 10–13).

BY (DATE)

CRITERION (PCPM, AND ACCURACY PERCENT, TOGETHER)

GIVEN (TIME LIMIT, ANY ALLOWED SUPPORT)

ON ____ OF ____ CONSECUTIVE PROBES

STUDENT WILL (WRITE, IN THE WORDS OF THE PROBE)

AS MEASURED BY (COMBINING LIKE TERMS FLUENCY PROBES, FORMS A–D, PAGE 10–13)

BASELINE: GIVE FORMS A, B AND C ON THREE DAYS AT THE SAME TIME LIMIT, TAKE THE MIDDLE PCPM SCORE

BASELINE PROBE 1	BASELINE PROBE 2	BASELINE PROBE 3	MEDIAN PCPM (THE BASELINE)

BENCHMARKS TOWARD THE GOAL

#	BENCHMARK	TARGET DATE	TARGET PCPM / ACCURACY	ACTUAL	MET?
1					
2					
3					

GIVING AND SCORING THE PROBE

- ☐ Same time limit every session. Say: “Combine the like terms in each problem. Write the simplified expression in the box. If you are not sure, keep going.” Hand the student the form and a pencil. Start the timer.
- ☐ Let the student write; do not help during the probe. Stop at the time limit, even mid-item, and circle the last item the student was working on.
- ☐ Score against the keys (page 14) one item at a time: coefficient and variable(s) must match the key — term order does not matter ($6x+3y = 3y+6x$). PCPM = problems correct ÷ seconds × 60, rounded.
- ☐ A criterion needs BOTH PCPM and accuracy to clear together — speed with the wrong terms combined is not fluency.

SCORING RULES FOR THIS STUDENT (ACCEPTED TERM ORDER, SUPPORTS ALLOWED)

.....

WHAT THE ERRORS SAY TO RETEACH (CARRY OVER FROM THE LOG)

.....

FORM A

Combining Like Terms — Form A

My name: _____ Date (optional): _____



Combine the like terms. Write the simplified expression in the box.
Go as fast as you can!

One-Variable Terms

1

$$7y - 3y$$

=

2

$$7y - 4y$$

=

3

$$5t + 3t$$

=

4

$$2b + 9b$$

=

5

$$8t - 4t$$

=

6

$$5n + 6n$$

=

Two-Variable Terms

7

$$5n + 1b + 5n$$

=

8

$$1a + 4y + 8a$$

=

9

$$4a + 4n - 3a$$

=

10

$$9b + 3x + 8b$$

=

11

$$4t + 4n - 3t$$

=

12

$$3b + 5n - 2b$$

=

 TRACKER

Combining Like Terms Fluency — Data Log and Graph

One row per probe. Three points in a row under the aim line is a decision: change the teaching and write what changed in the notes.

STUDENT

CRITERION / AIM (PCPM)

GOAL DATE

EXPRESSIONS CORRECT PER MINUTE (PCPM), 0 TO 6 · DRAW THE AIM LINE FROM THE BASELINE TO THE CRITERION FIRST, THEN PLOT EACH WEEK

#	DATE	FORM	TIME (SEC)	PROBLEMS REACHED	PROBLEMS CORRECT	ERRORS	PCPM	NOTES
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

CHECKLIST

Quick-Response Observation Checklist

Not a second score. A place to watch HOW the answer came out — the matching-variable terms combined correctly, or every coefficient added together regardless of variable — and for the team to write its own call.

STUDENT

WEEKS COVERED

FORM ROTATION

#	DATE	FORM	MATCHED TERMS, RIGHT (TALLY)	SUMMED ALL, WRONG (TALLY)	GUESS / BLANK (TALLY)	NOTES (WHICH PROBLEMS, WHAT PATTERN)
1						
2						
3						
4						
5						
6						
7						
8						

HOW TO MARK IT

☐ Matched terms, right: combines only the two terms that share a variable, carries the other variable's term through unchanged, matches the key (any term order).

☐ Summed all, wrong: adds or multiplies every number together without regard to variable; the final expression does not match the key.

☐ Guess / blank: no pattern, or the item is left blank.

☐ Tallies describe the SAME probe scored on the graph page (page 16), not a different one.

WHAT THIS PAGE IS FOR

A rising PCPM built on correctly combining only the matching-variable terms and a rising PCPM built on answers that happen to land close without applying the rule are two different pictures, even when the number on the graph looks the same. This page is where that difference gets written down, so the reteach plan matches what is actually happening, not just the rate.

THE TEAM'S OWN CALL, IN ITS OWN WORDS — NOT A CUTOFF THIS FILE SETS

There is no fixed number of tallies or PCPM score anywhere in this file that means “fluent.” Write your team’s own call below, and change it whenever the pattern changes.

THE PATTERN IS MOSTLY (SUMS ALL COEFFICIENTS / DROPS THE SECOND VARIABLE'S TERM / A SHAKY FACT / OTHER), AND WHY

DATE OF THIS CALL

EXAMPLE

A Filled-In Data Log (Invented Student)

SAMPLE · INVENTED STUDENT

Priya is invented, seventh grade. Twelve weekly timed probes, the aim line, the change three flat points forced, and the three consecutive weeks speed and accuracy cleared the goal together.

THE GOAL, AS WRITTEN FOR PRIYA, SEVENTH GRADE (INVENTED)

By March 15, when given a 2-minute timed combining-like-terms probe (one-variable and two-variable terms, mixed order), Priya will correctly simplify 6 expressions per minute with at least 80 percent accuracy on 3 consecutive weekly probes, as measured by teacher-scored Combining Like Terms Fluency probes (forms A–D).

#	DATE	FORM	TIME (SEC)	PROBLEMS REACHED	PROBLEMS CORRECT	ERRORS	PCPM	NOTES
1	9/9	A	120	8	4	4	2	baseline
2	9/16	B	120	9	4	5	2	baseline
3	9/23	C	120	8	4	4	2	baseline (median of 2, 2, 2 = 2)
4	9/30	D	120	9	4	5	2	flat vs. baseline
5	10/7	A	120	9	4	5	2	flat vs. baseline
6	10/14	B	120	9	4	5	2	3 probes flat: added a daily warm-up circling the terms that share a variable
7	10/21	C	120	10	6	4	3	–
8	10/28	D	120	11	8	3	4	errors mostly the two-variable items
9	11/4	A	120	12	8	4	4	same pattern: dropped the second variable's term on two-variable items
10	11/11	B	120	12	12	0	6	accuracy 100%, PCPM at target, first time
11	11/18	C	120	12	12	0	6	accuracy 100%, PCPM at target
12	11/25	D	120	12	12	0	6	accuracy 100%, PCPM at target, third probe in a row

HOW TO READ THE LOG

- ☐ Baseline was the median of three forms on three days: 2, 2 and 2 PCPM, so 2. Not the average, not the best.
- ☐ The aim line runs from 2 PCPM in week 1 to 6 PCPM at the goal date. Probes 4, 5 and 6 (all 2 PCPM) sat flat at baseline: three probes with no rise, so the teaching changed (a daily warm-up circling the terms that share a variable before combining) and the change is written on that row.
- ☐ Accuracy and PCPM do not move together: accuracy crossed 70 percent at probe 8 (72.7%), while PCPM was still 4 that same week.
- ☐ Both numbers cleared the criterion together for three consecutive probes, 10 through 12 (6 PCPM, 100 percent accuracy each week): the goal is met as of probe 12, the third and most recent of the three.

THE PROGRESS REPORT SENTENCE THIS LOG PRODUCES

"Priya simplified 2 expressions correctly per minute at 50 percent accuracy in early September (probe 1, 4 of 8), and 6 per minute at 100 percent accuracy on each of the three most recent probes, meeting the target for three consecutive weeks as of the November 25 probe." Every number is on the log above.