

Integer Operations Timed Computation Probes

SECTION 2 · FOUR TIMED FORMS

INTEGER OPERATIONS FLUENCY PROBES

FORM A Integer Operations — Form A

My name: _____ Date (optional): _____

Add, subtract, multiply or divide. Watch the sign. Write your answer in the box. Go as fast as you can!

1 $-5 \times (-2) =$

SHOW YOUR WORK

2 $-19 + (-12) =$

SHOW YOUR WORK

3 $-11 \times (-2) =$

SHOW YOUR WORK

4 $-4 \div 2 =$

SHOW YOUR WORK

5 $-15 \div (-3) =$

SHOW YOUR WORK

6 $-35 \div 5 =$

SHOW YOUR WORK

7 $9 - (-16) =$

SHOW YOUR WORK

8 $-4 \times 7 =$

SHOW YOUR WORK

9 $-72 \div 9 =$

SHOW YOUR WORK

10 $-10 + (-1) =$

SHOW YOUR WORK

11 $-4 + 15 =$

SHOW YOUR WORK

12 $-4 \times 10 =$

SHOW YOUR WORK

13 $2 - 16 =$

SHOW YOUR WORK

14 $-11 - 18 =$

SHOW YOUR WORK

15 $19 - (-11) =$

SHOW YOUR WORK

16 $-1 + 14 =$

SHOW YOUR WORK

17 $9 - (-15) =$

SHOW YOUR WORK

18 $-36 \div (-6) =$

SHOW YOUR WORK

19 $-12 \times (-3) =$

SHOW YOUR WORK

20 $-15 + (-10) =$

SHOW YOUR WORK

Integer Operations Fluency, Timed Progress Monitoring Probes

Page 10 of 23

BRIGHT PATH SPED

INTEGER OPERATIONS FLUENCY PROBES

Integer Operations Fluency — Goal and Directions

For one skill. Timed; score is digits correct per minute (DCPM) and accuracy, together.

Addition, subtraction, multiplication and division problems on signed numbers in writing the student which rule to apply. Four equivalent forms, 20 problems each, 35 digits score is speed and accuracy together — digits correct per minute (DCPM) — never in the answer is tracked separately from the digit count.

EDIT EVERY BRACKET TO FIT THE STUDENT

[4]-minute timed integer operations probe (mixed addition, subtraction, signed numbers), [Student] will correctly write [9] digits per minute with at [3] consecutive weekly probes, as measured by teacher-scored Integer forms A-D, page 10-13).

CRITERION (DCPM, AND ACCURACY PERCENT, TOGETHER)

SUPPORT) ON ____ OF ____ CONSECUTIVE PROBES

AS MEASURED BY (INTEGER OPERATIONS FLUENCY PROBES, FORMS A-D, PAGE 10-13)

ON THREE MAKE THE

MEDIAN DCPM (THE BASELINE)

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

"Add, subtract, multiply or divide. Watch the sign." Hand the student the

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

it by digit, by place — a digit counts even if another digit in that answer is

DCPM = digits correct ÷ minutes elapsed, rounded.

accuracy to clear together — digits written quickly past wrong answers or

OWED

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



**Integer Operations
Fluency — Goal
and Directions**
GOAL

8

02 Four Timed Forms

PAGES 10–14



**Integer Operations
— Form A**
FORM A

10



**Integer Operations
— Form B**
FORM B

11



**Integer Operations
— Form C**
FORM C

12



**Integer Operations
— Form D**
FORM D

13



**Scoring Keys —
Forms A–D**
REFERENCE

14

03 Track, Report and Share

PAGES 16–22



**Integer Operations
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 DCPM (digits 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 mixes 20 addition, subtraction, multiplication and division problems on signed numbers; the time limit, not the sheet, decides when the probe ends.

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



3

Watch, decide, report, share

The quick-response checklist (page 17) notes whether the SIGN on an answer was shown and correct, worked but wrong, or guessed/blank, and gives the team a place to write its own call on where practice should go next — 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 student 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.

DIGITS CORRECT, AND THE SIGN, KEPT SEPARATE

Every digit of the written answer is scored by place, independent of the sign; the sign gets its own mark on the quick-response checklist, so a right digit string with a wrong sign is never counted as if the answer were fully correct.

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 student 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

Integer Operations Fluency — Goal and Directions

Goal, baseline and directions for one skill. Timed; score is digits correct per minute (DCPM) and accuracy, together.

The student solves mixed addition, subtraction, multiplication and division problems on signed numbers in writing — the operation symbol tells the student which rule to apply. Four equivalent forms, 20 problems each, 35 digits possible on every form. The score is speed and accuracy together — digits correct per minute (DCPM) — never accuracy alone, and the sign on the answer is tracked separately from the digit count.

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

By [March 15], when given a [4]-minute timed integer operations probe (mixed addition, subtraction, multiplication and division on signed numbers), [Student] will correctly write [9] digits per minute with at least [85] percent accuracy on [3] consecutive weekly probes, as measured by teacher-scored Integer Operations Fluency probes (forms A–D, page 10–13).

BY (DATE)

CRITERION (DCPM, 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 (INTEGER OPERATIONS 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 DCPM SCORE

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

BENCHMARKS TOWARD THE GOAL

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

GIVING AND SCORING THE PROBE

- ☐ Same time limit every session. Say: “Add, subtract, multiply or divide. Watch the sign.” 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-problem, and circle the last problem the student was working on.
- ☐ Score against the keys (page 14) digit by digit, by place — a digit counts even if another digit in that answer is wrong, and independent of the sign. DCPM = digits correct ÷ minutes elapsed, rounded.
- ☐ A criterion needs BOTH DCPM and accuracy to clear together — digits written quickly past wrong answers or wrong signs is not computation fluency.

SCORING RULES FOR THIS STUDENT (ALLOWED SUPPORTS, PLACE-VALUE CONVENTIONS)

.....

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

.....

FORM A

Integer Operations — Form A

My name: _____

Date (optional): _____



Add, subtract, multiply or divide. Watch the sign. Write your answer in the box. Go as fast as you can!

1 $-5 \times (-2) = \square$

SHOW YOUR WORK

2 $-19 + (-12) = \square$

SHOW YOUR WORK

3 $-11 \times (-2) = \square$

SHOW YOUR WORK

4 $-4 \div 2 = \square$

SHOW YOUR WORK

5 $-15 \div (-3) = \square$

SHOW YOUR WORK

6 $-35 \div 5 = \square$

SHOW YOUR WORK

7 $9 - (-16) = \square$

SHOW YOUR WORK

8 $-4 \times 7 = \square$

SHOW YOUR WORK

9 $-72 \div 9 = \square$

SHOW YOUR WORK

10 $-10 + (-1) = \square$

SHOW YOUR WORK

11 $-4 + 15 = \square$

SHOW YOUR WORK

12 $-4 \times 10 = \square$

SHOW YOUR WORK

13 $2 - 16 = \square$

SHOW YOUR WORK

14 $-11 - 18 = \square$

SHOW YOUR WORK

15 $19 - (-11) = \square$

SHOW YOUR WORK

16 $-1 + 14 = \square$

SHOW YOUR WORK

17 $9 - (-15) = \square$

SHOW YOUR WORK

18 $-36 \div (-6) = \square$

SHOW YOUR WORK

19 $-12 \times (-3) = \square$

SHOW YOUR WORK

20 $-15 + (-10) = \square$

SHOW YOUR WORK

TRACKER

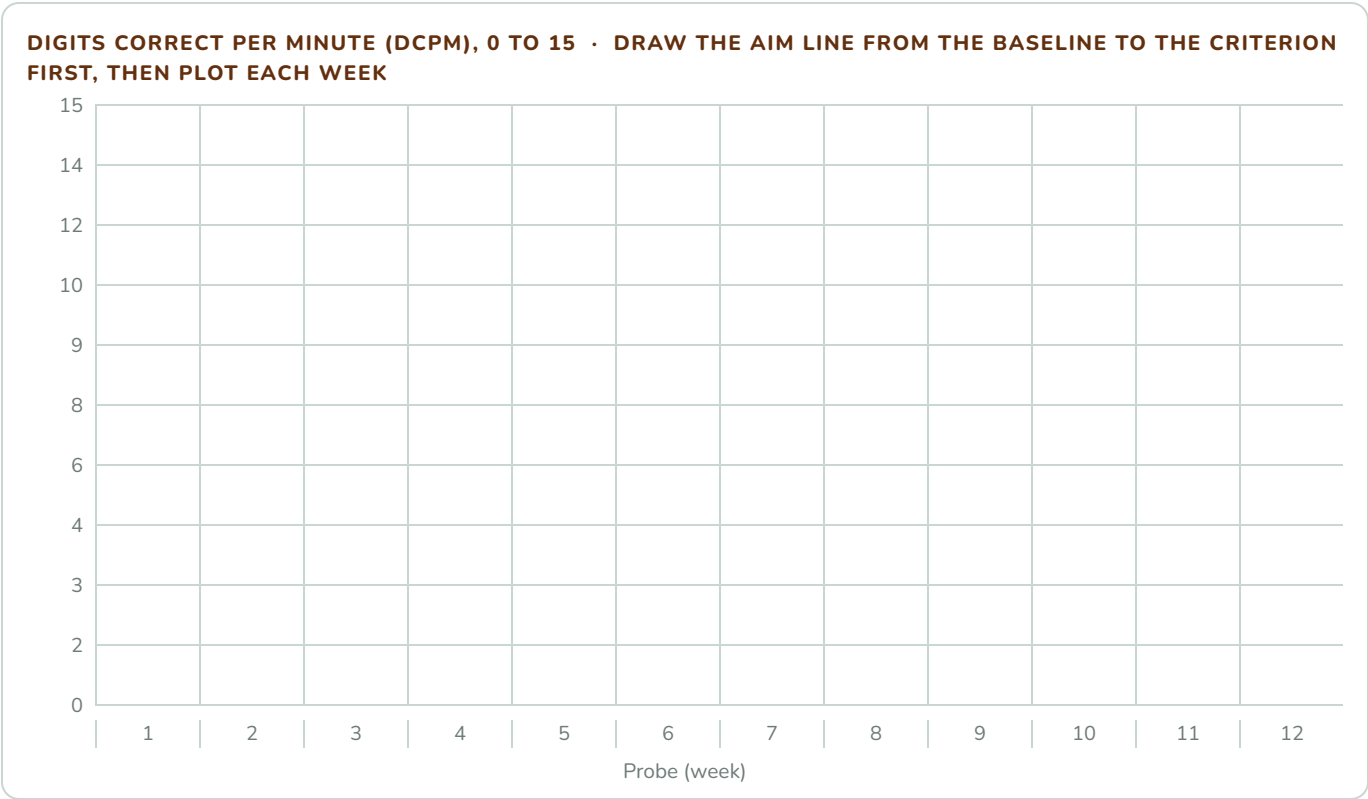
Integer Operations Fluency — Data Log and Graph

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 (DCPM)

GOAL DATE



#	DATE	FORM	TIME (SEC)	PROBLEMS REACHED	DIGITS POSSIBLE	DIGITS CORRECT	DCPM	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 whether the SIGN was shown and correct, worked but wrong, or guessed/blank — and for the team to write its own call on where the breakdown happens.

STUDENT WEEKS COVERED FORM ROTATION

#	DATE	FORM	SIGN SHOWN AND CORRECT (TALLY)	WORKED, BUT WRONG (TALLY)	GUESS / BLANK (TALLY)	NOTES (WHICH OPERATIONS, WHAT PATTERN)
1						
2						
3						
4						
5						
6						
7						
8						

HOW TO MARK IT

- ☐ Sign shown and correct: there is visible work (a crossed sign, a written rule, a note) and the final answer's sign, as well as its digits, are correct.
- ☐ Worked, but wrong: there is visible work on the page, but the final answer has at least one wrong digit or the wrong sign.
- ☐ Guess / blank: an answer with no supporting mark at all, or the item is left blank.
- ☐ Tallies are marks, not a score — they describe the SAME probe scored on the graph page (page 16), not a different one.

WHAT THIS PAGE IS FOR

A rising DCPM built on a sign consistently shown and correct and a rising DCPM built on answers whose digits happen to land close while the sign is guessed 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.

WHERE THE BREAKDOWN HAPPENS, IN THE TEAM'S OWN WORDS — NOT A CUTOFF THIS FILE SETS

No fixed tally or DCPM score here means “fluent.” Write your team’s own call below.

THE BREAKDOWN IS MOSTLY (THE SIGN RULE / THE FACT ITSELF / THE OPERATION SYMBOL / OTHER), AND WHY

DATE OF THIS CALL

EXAMPLE

A Filled-In Data Log (Invented Student)

SAMPLE · INVENTED STUDENT

Jordan is invented, seventh grade. Twelve weekly timed probes, the aim line, the change three flat points forced, and why accuracy cleared the goal before speed did.

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

By March 15, when given a 4-minute timed integer operations probe (mixed addition, subtraction, multiplication and division on signed numbers), Jordan will correctly write 9 digits per minute with at least 85 percent accuracy on 3 consecutive weekly probes, as measured by teacher-scored Integer Operations Fluency probes (forms A–D).

#	DATE	FORM	TIME (SEC)	PROBLEMS REACHED	DIGITS POSSIBLE	DIGITS CORRECT	DCPM	NOTES
1	9/9	A	240	5	8	4	1	baseline
2	9/10	B	240	5	9	4	1	baseline
3	9/11	C	240	6	10	4	1	baseline (median of DCPM row 1-3)
4	9/18	D	240	6	10	4	1	flat vs. baseline
5	9/25	A	240	6	9	4	1	flat vs. baseline
6	10/2	B	240	7	11	4	1	3 probes flat: drilled the sign rule with a daily warm-up on crossing zero
7	10/9	C	240	8	14	8	2	–
8	10/16	D	240	9	16	12	3	–
9	10/23	A	240	9	14	12	3	accuracy 86%, sign mostly shown and correct
10	10/30	B	240	10	17	16	4	accuracy 94%, DCPM still under 9
11	11/6	C	240	11	18	16	4	accuracy 89%, DCPM under 9
12	11/13	D	240	11	20	18	4	accuracy 90%, DCPM under 9

HOW TO READ THE LOG

- ☐ Baseline was the median of three forms on three days: 1, 1 and 1 DCPM, so 1.
- ☐ The aim line runs from 1 DCPM in week 1 to 9 DCPM at the goal date. Probes 4, 5 and 6 sat flat at baseline: three probes with no rise, so the teaching changed (a daily warm-up on the sign rule) and the change is written on the row.
- ☐ Accuracy and DCPM do not move together: accuracy rose sharply once the sign was shown consistently, while DCPM rose more slowly.
- ☐ Accuracy cleared 85 percent for the last three probes in a row (94%, 89%, 90%), and DCPM reached 4 by probe 12, still under the 9-DCPM target, so the goal is not yet met even though accuracy already clears.

THE PROGRESS REPORT SENTENCE THIS LOG PRODUCES

"On weekly timed integer operations probes, Jordan wrote 1 correct digits per minute at about 50 percent accuracy in early September, and 4 digits per minute at about 90 percent accuracy in November. Accuracy has met the 85 percent target for three probes in a row; speed has not yet reached the 9-DCPM target. Progress is steady; the goal is not yet met."