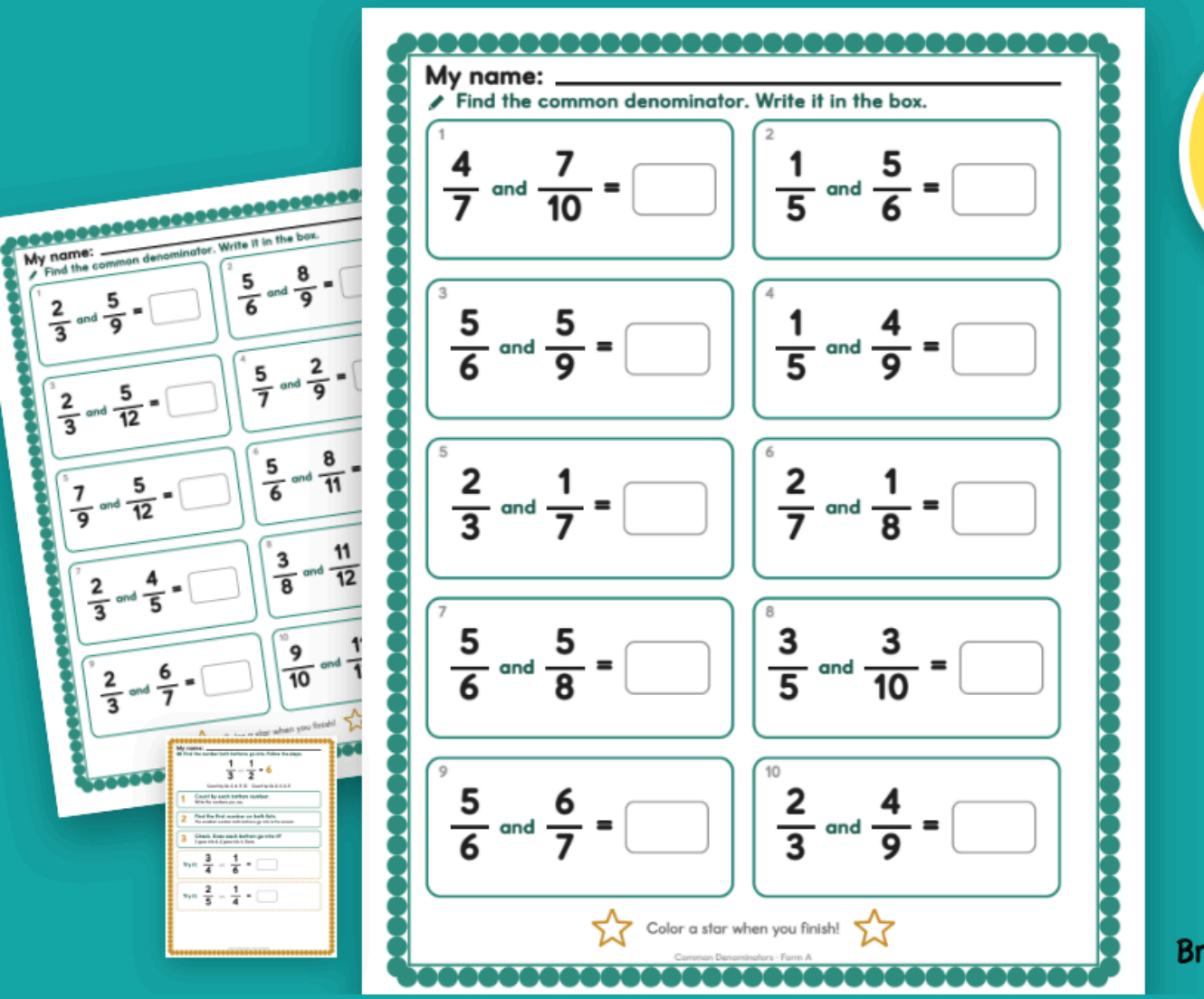
COMMON DENOMINATORS

GRADES 4-6: WORKSHEETS AND IEP PROBES



10 FORMS

Bright Path Sped

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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 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.

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PREVIEW

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 seven-step routine, one page.

02 The Goal
The goal line, the baseline and the benchmarks.

03 Probe Forms A–J
The ten rotating forms, one per week.

04 Practice Worksheets
Three sheets at three levels, marked by shape.

05 Answer Keys & Notes
Every answer, and where the errors fall.

06 Graph & Caseload
The aim line, the weekly plot, the caseload grid.

Before the first probe

- Write the goal line from the IEP, in your own words, and fill in every blank.
- Give the baseline: three forms, three different days, before the first plotted point.
- Share the rotation (A, B, C, D, E, F, G, H, I, J) with anyone else who might give a form.

PREVIEW

My name: _____

Find the number both bottoms go into. Follow the steps.

$$\frac{1}{3} \text{ and } \frac{1}{2} = 6$$

Count by 3s: 3, 6, 9, 12 Count by 2s: 2, 4, 6, 8

1 **Count by each bottom number.**
Write the numbers you say.

2 **Find the first number on both lists.**
The smallest number both bottoms go into is the answer.

3 **Check. Does each bottom go into it?**
3 goes into 6. 2 goes into 6. Done.

Try it: $\frac{3}{4}$ and $\frac{1}{6}$ = ☐

Try it: $\frac{2}{5}$ and $\frac{1}{4}$ = ☐

PREVIEW

Preview - Bright Path Sped

My name: _____

Circle the first number on both lists. Write it in the box.

$\frac{1}{2}$ and $\frac{1}{5}$ Common denominator ☐

Count by 2s: 2 4 6 8 10 12 14 16 18 20

Count by 5s: 5 10 15 20

$\frac{2}{3}$ and $\frac{1}{9}$ Common denominator ☐

Count by 3s: 3 6 9 12 15 18

Count by 9s: 9 18

$\frac{5}{8}$ and $\frac{1}{2}$ Common denominator ☐

Count by 8s: 8 16

Count by 2s: 2 4 6 8 10 12 14 16

$\frac{3}{5}$ and $\frac{1}{10}$ Common denominator ☐

Count by 5s: 5 10 15 20

Count by 10s: 10 20

PREVIEW

Preview - Bright Path Sped

My name: _____

Three bottoms this time. Find the number all three go into.

1

$$\frac{2}{3}, \frac{3}{8}, \frac{5}{12} = \square$$

2

$$\frac{4}{5}, \frac{1}{10}, \frac{7}{12} = \square$$

3

$$\frac{5}{6}, \frac{7}{10}, \frac{1}{15} = \square$$

4

$$\frac{7}{9}, \frac{5}{6}, \frac{2}{3} = \square$$

5

$$\frac{5}{7}, \frac{3}{14}, \frac{4}{21} = \square$$

6

$$\frac{5}{9}, \frac{2}{3}, \frac{7}{12} = \square$$

PREVIEW

Preview - Bright Path Sped

My name: _____

Find the common denominator. Write it in the box.

1. $\frac{7}{8}$ and $\frac{5}{12}$ = ☐

2. $\frac{2}{3}$ and $\frac{2}{11}$ = ☐

3. $\frac{2}{3}$ and $\frac{3}{10}$ = ☐

4. $\frac{5}{6}$ and $\frac{5}{12}$ = ☐

5. $\frac{2}{3}$ and $\frac{5}{6}$ = ☐

6. $\frac{2}{3}$ and $\frac{3}{5}$ = ☐

7. $\frac{5}{9}$ and $\frac{5}{12}$ = ☐

8. $\frac{5}{6}$ and $\frac{1}{9}$ = ☐

9. $\frac{5}{8}$ and $\frac{5}{9}$ = ☐

10. $\frac{3}{5}$ and $\frac{1}{11}$ = ☐

PREVIEW

 Color a star when you finish! 

Preview - Bright Path Sped

My name: _____

Find the common denominator. Write it in the box.

1 $\frac{2}{3}$ and $\frac{5}{9}$ = ☐

2 $\frac{5}{6}$ and $\frac{8}{9}$ = ☐

3 $\frac{2}{3}$ and $\frac{5}{12}$ = ☐

4 $\frac{5}{7}$ and $\frac{2}{9}$ = ☐

5 $\frac{7}{9}$ and $\frac{5}{12}$ = ☐

6 $\frac{5}{6}$ and $\frac{8}{11}$ = ☐

7 $\frac{2}{3}$ and $\frac{4}{5}$ = ☐

8 $\frac{3}{8}$ and $\frac{11}{12}$ = ☐

9 $\frac{2}{3}$ and $\frac{6}{7}$ = ☐

10 $\frac{9}{10}$ and $\frac{11}{12}$ = ☐

 Color a star when you finish! 

PREVIEW

Preview - Bright Path Sped

My name: _____

Find the common denominator. Write it in the box.

1 $\frac{3}{8}$ and $\frac{7}{12}$ = ☐

2 $\frac{5}{6}$ and $\frac{2}{9}$ = ☐

3 $\frac{7}{8}$ and $\frac{5}{9}$ = ☐

4 $\frac{2}{3}$ and $\frac{5}{7}$ = ☐

5 $\frac{1}{5}$ and $\frac{4}{11}$ = ☐

6 $\frac{1}{5}$ and $\frac{7}{10}$ = ☐

7 $\frac{5}{6}$ and $\frac{1}{10}$ = ☐

8 $\frac{5}{7}$ and $\frac{7}{10}$ = ☐

9 $\frac{5}{6}$ and $\frac{3}{11}$ = ☐

10 $\frac{2}{3}$ and $\frac{8}{9}$ = ☐

PREVIEW

Color a star when you finish!

Preview - Bright Path Sped

My name: _____

Find the common denominator. Write it in the box.

1 $\frac{3}{8}$ and $\frac{1}{12}$ = ☐

2 $\frac{2}{3}$ and $\frac{9}{10}$ = ☐

3 $\frac{4}{5}$ and $\frac{4}{7}$ = ☐

4 $\frac{4}{5}$ and $\frac{9}{10}$ = ☐

5 $\frac{2}{3}$ and $\frac{5}{8}$ = ☐

6 $\frac{6}{7}$ and $\frac{5}{8}$ = ☐

7 $\frac{5}{6}$ and $\frac{11}{12}$ = ☐

8 $\frac{2}{9}$ and $\frac{11}{12}$ = ☐

9 $\frac{5}{6}$ and $\frac{1}{8}$ = ☐

10 $\frac{3}{7}$ and $\frac{3}{10}$ = ☐

PREVIEW

Color a star when you finish!

Answer Key and Scoring - Forms A-C

Each row reads: the two fractions, then the common denominator.

Form A

#	Fractions = answer	Right?
1	4/7 and 7/10 = **70**	
2	1/5 and 5/6 = **30**	
3	5/6 and 5/9 = **18**	
4	1/5 and 4/9 = **45**	
5	2/3 and 1/7 = **21**	
6	2/7 and 1/8 = **56**	
7	5/6 and 5/8 = **24**	
8	3/5 and 3/10 = **10**	
9	5/6 and 6/7 = **42**	
10	2/3 and 4/9 = **9**	

Correct ___ / 10

Form B

#	Fractions = answer	Right?
1	7/8 and 5/12 = **24**	
2	2/3 and 2/11 = **33**	
3	2/3 and 3/10 = **30**	
4	5/6 and 5/12 = **12**	
5	2/3 and 5/6 = **6**	
6	2/3 and 3/5 = **15**	
7	5/9 and 5/12 = **36**	
8	5/6 and 1/9 = **18**	
9	5/8 and 5/9 = **72**	
10	3/5 and 1/11 = **55**	

Correct ___ / 10

Form C

#	Fractions = answer	Right?
1	1/8 and 11/12 = **24**	
2	7/10 and 1/12 = **60**	
3	2/3 and 1/10 = **30**	
4	7/8 and 7/10 = **40**	
5	5/7 and 4/9 = **63**	
6	4/5 and 3/10 = **10**	
7	2/3 and 1/5 = **15**	
8	2/3 and 11/12 = **12**	
9	4/5 and 2/7 = **35**	
10	2/3 and 3/7 = **21**	

Correct ___ / 10

Scoring reminder

- Untimed. Self-corrections count as correct. Log the score the same day.
- A larger common number that both bottoms go into (12 for 1/3 and 1/2) is scored by the rule your team wrote on the goal page.

PREVIEW

Answer Key and Scoring - Forms G-I

Each row reads: the two fractions, then the common denominator.

Form G

#	Fractions = answer	Right?
1	2/3 and 1/12 = **12**	
2	2/3 and 1/11 = **33**	
3	7/8 and 11/12 = **24**	
4	5/6 and 3/10 = **30**	
5	6/7 and 7/9 = **63**	
6	3/8 and 2/9 = **72**	
7	5/6 and 7/9 = **18**	
8	2/3 and 4/7 = **21**	
9	5/6 and 2/7 = **42**	
10	1/5 and 9/10 = **10**	

Correct ___ / 10

Form H

#	Fractions = answer	Right?
1	5/8 and 5/12 = **24**	
2	5/6 and 7/8 = **24**	
3	5/6 and 1/12 = **12**	
4	2/3 and 7/10 = **30**	
5	5/6 and 9/10 = **30**	
6	5/6 and 7/11 = **66**	
7	2/3 and 7/9 = **9**	
8	9/10 and 1/12 = **60**	
9	1/5 and 9/11 = **55**	
10	3/5 and 3/8 = **40**	

Correct ___ / 10

Form I

#	Fractions = answer	Right?
1	3/8 and 1/12 = **24**	
2	2/3 and 9/10 = **30**	
3	4/5 and 4/7 = **35**	
4	4/5 and 9/10 = **10**	
5	2/3 and 5/8 = **24**	
6	6/7 and 5/8 = **56**	
7	5/6 and 11/12 = **12**	
8	2/9 and 11/12 = **36**	
9	5/6 and 1/8 = **24**	
10	3/7 and 3/10 = **70**	

Correct ___ / 10

Scoring reminder

- Untimed. Self-corrections count as correct. Log the score the same day.
- A larger common number that both bottoms go into (12 for 1/3 and 1/2) is scored by the rule your team wrote on the goal page.

PREVIEW

Teacher Notes - Reading the Errors

Where the work breaks tells you what to teach next.

What this probe measures

- Whether a student can name the smallest number both bottoms go into, by counting the bottoms up and checking the answer.
- It is a quick weekly check against a goal you write. It is not a norm-referenced test and carries no benchmark score.

The bigger bottom is taken

- 1/3 and 1/2 answered 3. The 2s list never had a 3 in it.
- Teach the check: "Does the other bottom go into it?"

The bottoms are multiplied

- 1/4 and 1/6 answered 24: that works, but 12 is the least.
- Say it aloud: the smallest number on both lists, not the first big one.

A multiplication fact is the problem

- The method is right and 7 times 8 comes out wrong: that is a fact, not the strategy.
- Teach that fact, then run the next form.

Words to use when you teach it

- **Multiples**: the numbers you say when you count by a bottom number.
- **Common denominator**: a number both bottoms go into.
- **Least**: the smallest one on both lists.
- **Check**: does each bottom go into it?

Prompts to say, not to write on the child's sheet

- "Count by the first bottom. Now count by the second."
- "What is the first number on both lists?"
- "Does each bottom go into it?"

Practice sheets: what the shapes mean

- A **circle** sheet prints the multiples; the child finds the first match.
- A **square** sheet asks the child to write both fractions with the new bottom.
- A **triangle** sheet has three bottoms at once.
- Practice sheets are never scored on the log; only the probe forms are.

PREVIEW

Common Denominators - Caseload Summary

Every student on this goal, on one grid. Twelve 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 10, 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)

Jordan is an invented student. Baseline on Forms A, B and C, then ten weekly probes, the aim line, the change that three points under it forced, and the criterion being met.

The numbers this log is measured against, for Jordan (invented)

The goal line is left blank here, as on the goal page: your team writes it from the IEP. The numbers used below are the baseline, an aim line from 4 to 8 at week 10, and a criterion of 8 of 10 on 3 consecutive probes.

Week	Form	Correct	Errors	Aim	Notes
1	D	4	6	4.0	Picked the bigger bottom and did not check the other one.
2	E	4	6	4.4	Same error: the other bottom was never checked.
3	F	4	6	4.9	Same error: the list stopped before the match.
4	G	5	5	5.3	3 under the aim line in a row: teaching changed. Check step added.
5	H	6	4	5.8	Used the check step. Multiplied the bottoms once: right, but not the least.
6	I	7	3	6.2	Check step used. Multiplied the bottoms again: right, not the least.
7	J	6	4	6.7	Multiples of 7 and 8 slipped on some items.
8	A	8	2	7.1	Every item checked. First score of 8.
9	B	8	2	7.6	Multiples of 9 slipped once.
10	C	9	1	8.0	Criterion met: three in a row at 8 or better. Set the next goal.

How to read the log

- Baseline is the median of the first three probes: A 4, B 5, C 4. The median is 4. Not the average, not the best.
- The aim line runs from 4 at week 1 to 8 at week 10. Weeks 2, 3 and 4 sat under it: three in a row, so the teaching changed in week 4.
- The notes say where the errors fell: the bigger bottom was taken without a check. A score alone would not have said that.
- Weeks 8, 9 and 10 (8, 8 and 9) were at 8 or better: the criterion, met on three in a row.

The progress report sentence this log produces

On weekly finding common denominators probes (10 items), Jordan scored 4 of 10 at baseline and 8, 8 and 9 of 10 on the last three probes, meeting the criterion of 8 of 10 on 3 consecutive probes. Every number in it is on the log above; nothing is from memory.

Where every number in this example came from

- The baseline is the median of Forms A, B and C on three days, not an average and not the best score.
- Every score on the log traces to its row; errors are 10 minus the correct count, and the aim is a straight line from 4 to 8.
- Copy this layout for your own student, with your own real scores.

PREVIEW