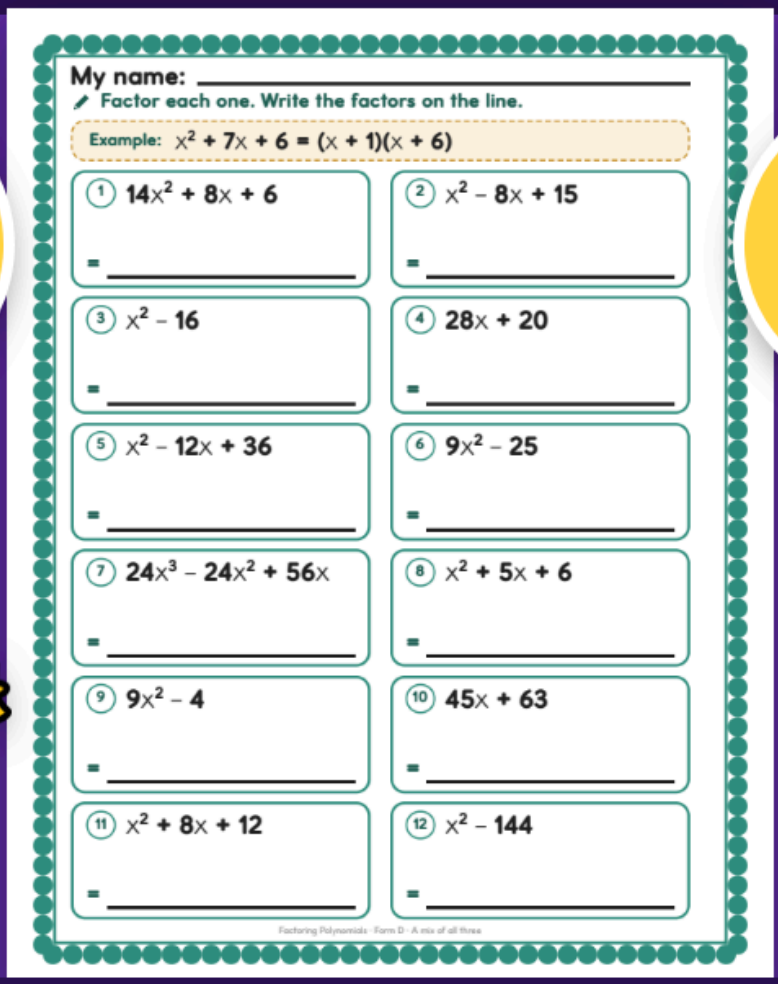
FACTORING POLYNOMIALS

PROGRESS MONITORING PROBES

4 FORMS

GR. 8-10





My name: _____

Factor each one. Write the factors on the line.

Example: $x^2 + 7x + 6 = (x + 1)(x + 6)$

1. $14x^2 + 8x + 6$ = _____
2. $x^2 - 8x + 15$ = _____
3. $x^2 - 16$ = _____
4. $28x + 20$ = _____
5. $x^2 - 12x + 36$ = _____
6. $9x^2 - 25$ = _____
7. $24x^3 - 24x^2 + 56x$ = _____
8. $x^2 + 5x + 6$ = _____
9. $9x^2 - 4$ = _____
10. $45x + 63$ = _____
11. $x^2 + 8x + 12$ = _____
12. $x^2 - 144$ = _____

Factoring Polynomials · Form D · A mix of all three

BRIGHT PATH SPED

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 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.

© Bright Path Sped. For single-classroom use by the original purchaser.

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 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, one page 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.

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

Preview - Bright Path Sped

My name: _____

Factor each one. Write the factors on the line.

Example: $4x + 8 = 4(x + 2)$

1. $5x^2 + 6x$ = _____

2. $21x^2 - 49x$ = _____

3. $8x + 8$ = _____

4. $8x - 10$ = _____

5. $16x^2 - 8x + 32$ = _____

6. $30x^3 - 12x$ = _____

7. $18x^2 - 63x$ = _____

8. $3x^2 + 5x$ = _____

9. $6x^2 - 12$ = _____

10. $21x^3 + 28x$ = _____

11. $6x^3 - 3x$ = _____

12. $10x^3 - 6x^2 + 2x$ = _____

PREVIEW

Preview - Bright Path Sped

My name: _____

Factor each one. Write the factors on the line.

Example: $x^2 + 7x + 6 = (x + 1)(x + 6)$

1. $x^2 + x - 12$ = _____
2. $x^2 + 3x - 10$ = _____
3. $x^2 - 14x + 49$ = _____
4. $x^2 + 7x + 12$ = _____
5. $x^2 - x - 2$ = _____
6. $x^2 + 9x + 20$ = _____
7. $x^2 + x - 6$ = _____
8. $x^2 - 4x - 32$ = _____
9. $x^2 - 3x - 10$ = _____
10. $x^2 + 2x - 8$ = _____
11. $x^2 - 11x + 18$ = _____
12. $x^2 + 9x + 8$ = _____

PREVIEW

Preview - Bright Path Sped

My name: _____

Factor each one. Write the factors on the line.

Example: $x^2 + 7x + 6 = (x + 1)(x + 6)$

1. $14x^2 + 8x + 6$ = _____
2. $x^2 - 8x + 15$ = _____
3. $x^2 - 16$ = _____
4. $28x + 20$ = _____
5. $x^2 - 12x + 36$ = _____
6. $9x^2 - 25$ = _____
7. $24x^3 - 24x^2 + 56x$ = _____
8. $x^2 + 5x + 6$ = _____
9. $9x^2 - 4$ = _____
10. $45x + 63$ = _____
11. $x^2 + 8x + 12$ = _____
12. $x^2 - 144$ = _____

PREVIEW

Teacher Notes - Reading the Misses

Which kind of problem is missed, and what is written on the answer line, tells you what to teach next.

What this probe measures

- Whether a student can factor a polynomial of three kinds: pull out a greatest common factor, factor a trinomial with a leading coefficient of 1, and factor a difference of squares.
- It is a quick weekly check against a goal you write. It is not a norm-referenced test and carries no benchmark score.

A common factor is left behind

- The answer is 2(3x + 6) when the greatest common factor was 6.
- Teach: check the parentheses for a number that still divides every term, then run the next form.

The signs are wrong

- A trinomial answer has the right numbers and the wrong signs, or a difference of squares has two minus signs.
- Teach multiplying back out to check, then run the next form.

Misses that cluster on one kind of problem

- Form A is greatest common factor, Form B trinomials and Form C difference of squares. On Form D the kinds sit in the same places every time (1, 4, 7, 10; 2, 5, 8, 11; 3, 6, 9, 12).
- Several misses on one kind across two forms: teach that kind with a worked example before more probes.
- Misses spread across all three kinds point to multiplication facts or integer signs, not to factoring.

The student cannot start

- Do the first problem together, aloud, and let the student do the second.
- Use the example at the top of the form, and multiply the answer back out to check; fade the help and write what you changed on the log.

Words to use when you teach it

- **Factor**: write as a product. **Common factor**: a number or a power of x that divides every term.
- **Trinomial**: three terms. Find two numbers that multiply to the last term and add to the middle one.
- **Difference of squares**: a perfect square minus a perfect square.

This student's scoring rules and notes

PREVIEW

Factoring Polynomials - 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 12, 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)

Dana is invented. Twelve weekly factoring polynomials probes, the aim line, the change that three low points forced, and the criterion being met.

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

By May 15, when given a 12-problem timed factoring probe (greatest common factor, trinomials with a leading coefficient of 1, and differences of squares) and 5 minutes, Dana will factor 10 of 12 problems correctly on 3 consecutive weekly probes, as measured by teacher-scored factoring polynomials probes (forms A–D).

#	Date	Form	Correct	Errors	Graphed	Notes
1	1/12	A	4	8	4	baseline
2	1/13	B	5	7	5	baseline
3	1/14	C	4	8	4	baseline (median of 4, 5, 4 = 4)
4	1/21	D	5	7	5	left a common factor behind
5	1/28	A	5	7	5	same: stopped at 2(3x + 6)
6	2/4	B	6	6	6	3 under the aim line: added a pull out the biggest number step
7	2/11	C	7	5	7	checks by multiplying back
8	2/18	D	8	4	8	trinomials now right
9	2/25	A	9	3	9	difference of squares: one sign slips
10	3/4	B	10	2	10	criterion score, first time
11	3/11	C	10	2	10	second in a row at 10
12	3/18	D	11	1	11	third in a row: goal met

How to read the log

- Baseline was the median of three forms on three days: 4, 5, 4, so 4. Not the average, not the best.
- The aim line runs from 4 at probe 1 to 10 at probe 12. Probes 4, 5 and 6 (5, 5, 6) 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: a common factor was left behind. A score alone would not have said that.
- Criterion was met on probes 10, 11 and 12 (10, 10, 11): three in a row at 10 of 12 or better.

The progress report sentence this log produces

On weekly timed factoring polynomials probes (12 problems, 5 minutes), Dana scored 4 of 12 at baseline and 10, 10 and 11 of 12 on the last three probes, meeting the criterion of 10 of 12 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

- Baseline is the median of the first three probes, not an average and not the best score.
- Copy this layout for your own student, with your own real scores.

PREVIEW