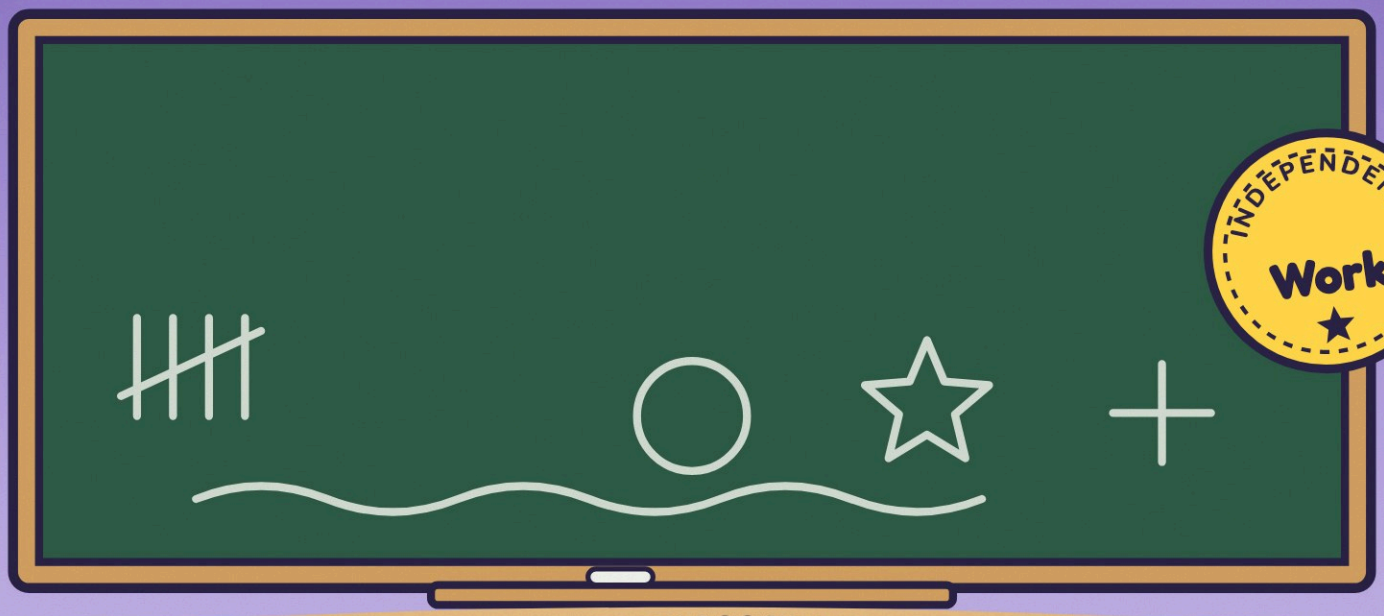
Factor Pairs

TASK BOX





14

? × ?

7×2

3×5

6×9

Special Education · Independent Work · 3rd – 5th

by Bright Path Sped

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01 The Color Set

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Level 2 Cards (Color)
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Level 3 Cards (Color)
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02 The Ink-Saver Set

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03 Key, Data and Home

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TWO TILE STYLES, ONE BOX

Sections 1 and 2 hold the same cards twice: accent-tinted tiles for a laminated box, black-on-white tiles for a photocopier or a copy that goes home. A dot code in the corner is the only sign of a card's level.

PRACTICE, NOT A TEST

Independent work practice with a data sheet attached. It counts cards with the right pair marked and nothing else; what that means for a student is your team's call.

☆ START HERE Start Here — Three Steps

Ninety seconds of reading. The cards need scissors and nothing else.

1

Print and cut

Print the reference page and the three card pages from the color set (pages 6–9) on cardstock, or the ink-saver set (pages 11–14) on plain paper. Laminate if the box lives in a rotation.

Cut along the dashed lines. Keep each level in its own bag; the dot code sorts a spilled box.

2

Run the cards

Hand over one card and use the same short line each time (page 21). The child finds the pair that multiplies to the number and marks that tile with a circle, a clothespin or a chip. Laminated cards wipe clean.

Start at Level 1 unless the student already finds a pair without help; the answer key (page 16) has every card.

3

Record and graph

Write the date, the level, cards correct and cards given on the data sheet (page 17) the same day, and what help was given in your own words.

Plot the percent on the graph (page 18). Send the family page (page 20) home the week the box is new.

WHAT THIS FILE IS

A fillable PDF with cut-apart factor pair cards and a worked reference page, plus the data pages behind them. The cards are a print task (a tile is circled, clipped or covered); the data sheet, graph, family page and headers take typing. It works offline, with no account or subscription, and prints the same on every machine.

WHAT THIS FILE IS NOT

It is not an editable online slideshow or word-processor document, and it is not a test of anything. It carries no prompt hierarchy, fading schedule or mastery rule; it describes how to run the cards already printed and how to count what happened.

THE RULE EVERY PAGE IN THIS FILE FOLLOWS

Nothing here decides what a percent means for a student, when to move up a level, or what a goal should say. Each of those is a blank you fill from your own team's plan and your district's wording.

IF SOMETHING DOES NOT WORK

A field will not hold my typing. Open the file in Adobe Acrobat Reader (free) or Preview, not a browser tab.
A student only answers with the reference page out. That is expected at first; put it away once a level runs clean without it. The **Ask a Question** tab on the product page reaches me, and a fix is a free update.

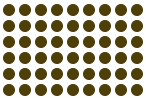
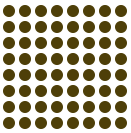
CONFIDENTIALITY, AND WHERE THIS FILE LIVES

A filled-in data sheet, graph or example-style note is a student record: initials only, first name only on the family page. The cards and reference page live in the box; the data sheet and graph stay in the student's folder so the trend is the first thing anyone finds.

REFERENCE

Factor Pairs Reference (Color)

Eight numbers with every factor pair and one array each. Print once, laminate, keep it by the box.

8	1×8, 2×4	 2 rows of 4
10	1×10, 2×5	 2 rows of 5
22	1×22, 2×11	 2 rows of 11
25	1×25, 5×5	 5 rows of 5
33	1×33, 3×11	 3 rows of 11
44	1×44, 2×22, 4×11	 4 rows of 11
54	1×54, 2×27, 3×18, 6×9	 6 rows of 9
64	1×64, 2×32, 4×16, 8×8	 8 rows of 8

HOW TO READ A ROW

The big tile is a number. The tiles beside it are every way to write it as two whole numbers multiplied. The dots show the pair closest to square as rows and columns, like eggs in a carton or stickers on a sheet. Count the dots and you get the number back.

IT IS A HELPER, NOT A KEY

None of these eight numbers is on a card, so the page teaches the idea without handing over an answer. Note “reference out” in the help column while a child still needs it.

CARDS Level 1 Cards (Color)

6 cards, two pairs to choose from. Print on cardstock and cut along the dashed lines. This is the color set; the same cards are on page 12 in the ink-saver set.

12

? × ? = 12

3×4 | 6×8

1

16

? × ? = 16

2×8 | 4×9

2

18

? × ? = 18

2×3 | 3×6

3

20

? × ? = 20

2×2 | 4×5

4

24

? × ? = 24

2×5 | 4×6

5

30

? × ? = 30

2×4 | 5×6

6

RUNNING A LEVEL 1 CARD

Slide one card across and ask, “Which pair makes this number?” One tile is built from small and large factors that land far from the number, so a child who multiplies in their head, or taps the reference page, can rule it out in a second.

THE DOT CODE

One dot in the corner means Level 1. A dropped stack gets back into its bags by dots alone. Each card’s small number, bottom-left, matches a row on the answer key (page 16).

CARDS Level 3 Cards (Ink-Saver)

6 cards, four pairs to choose from. Print on cardstock and cut along the dashed lines. This is the ink-saver (black and white) set; the same cards are on page 9 in the color set.

36

? × ? = 36

2×9	5×7
4×9	5×8

1 ●●●

40

? × ? = 40

3×4	4×9
8×5	6×7

2 ●●●

42

? × ? = 42

4×9	5×8
6×7	8×9

3 ●●●

48

? × ? = 48

2×4	5×9
8×6	7×7

4 ●●●

56

? × ? = 56

3×4	6×8
6×9	7×8

5 ●●●

63

? × ? = 63

3×5	7×8
9×7	8×8

6 ●●●

RUNNING A LEVEL 3 CARD

Four pairs in two rows. A tight pair lands one or two off the number, a near pair lands a few off, and a far pair is easy to drop. Only multiplying every tile separates them. Three dots mark this level.

MIXING LEVELS IN ONE BAG

A student who runs Level 3 cleanly can take a mixed handful from all three levels; the dots sort the cards afterward. Write “mixed” in the level column so the percent is read against the right cards.

LOG

Task Box Data Sheet

One row per session. It measures one thing: cards with the factor-pair tile correctly marked. Plot the percent on page 18.

STUDENT

GOAL (YOUR DISTRICT'S OWN WORDING)

CRITERION (YOUR TEAM SETS IT)

#	DATE	LEVEL	CARDS USED	CARDS CORRECT	CARDS GIVEN	PERCENT	HELP GIVEN	INITIALS
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

FIGURING THE PERCENT

Cards correct divided by cards given, times 100, to the nearest whole number. A card is correct when exactly one pair is marked and its two factors multiply to the number on that card. Two marks, or none, counts as given and not correct. "Cards used" lists the card numbers handed over that day.

THE HELP COLUMN IS YOUR OWN CODE

Write what the adult actually did: nothing, reference page out, said the number together. Use the same words each time so two rows can be compared. This file supplies no prompt hierarchy or fading rule; that is your team's plan.

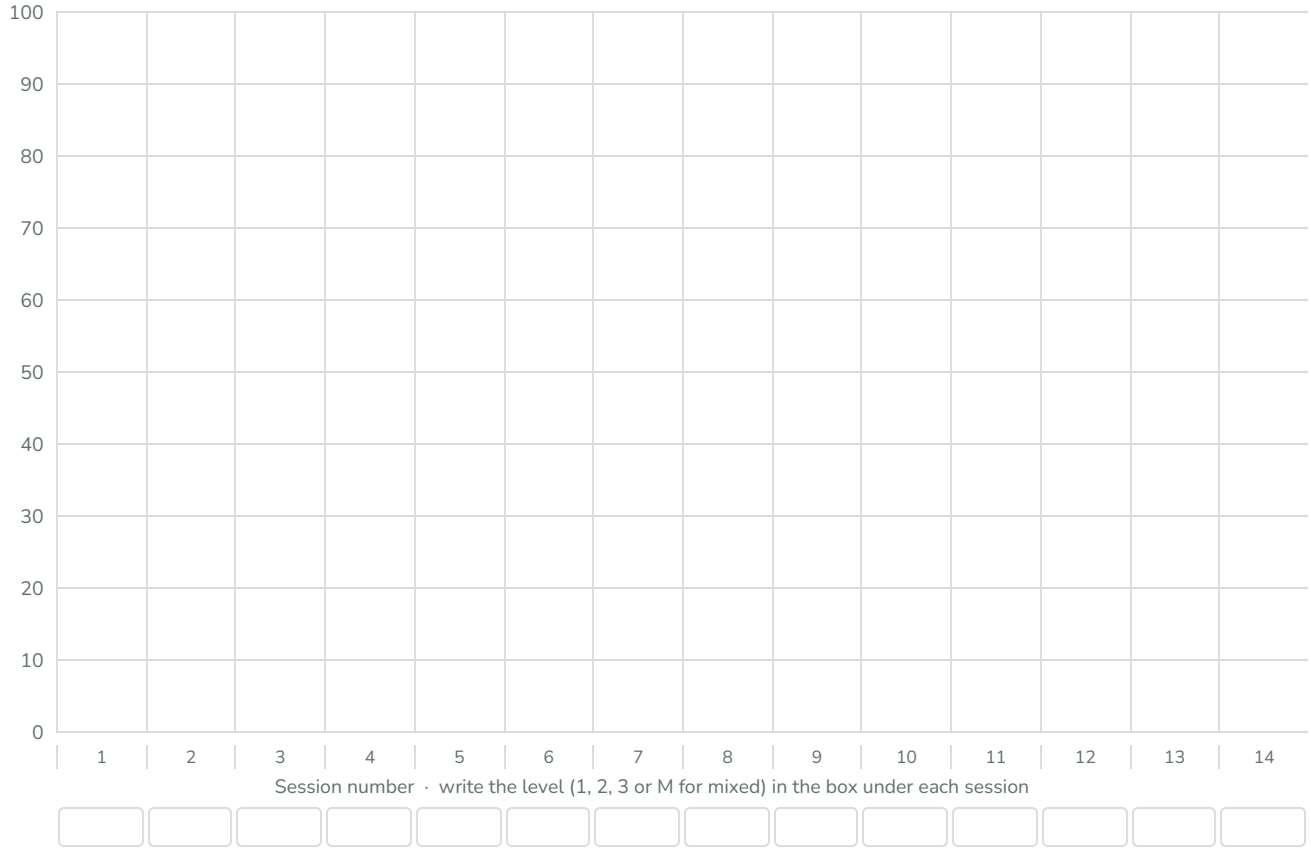
TRACKER

Percent Graph

Fourteen sessions across, 0 to 100 percent. One graph per student per task box.

STUDENT _____ TASK BOX _____ CRITERION (YOUR TEAM SETS IT) _____

PERCENT CORRECT · ONE DOT PER SESSION, THEN DRAW THE LINE



A LEVEL CHANGE IS A BREAK IN THE LINE

When the level goes up, expect the percent to dip — that is a harder set, not a lost skill. Start a fresh line segment at each level change so the graph is read within a level, not across one.

SETTING THE CRITERION FIELD

This page prints no target and no typical rate. Write the criterion your team agreed to in the field above before the first session, from the goal on the data sheet (page 17), so every dot is read against the same line.

BRINGING THIS PAGE TO A MEETING

A line is easier to read across a table than a column of percents. Copy or screenshot this page for a progress report or a family conference; the raw rows stay on the data sheet.

THREE FLAT SESSIONS

Three sessions in a row flat or falling within one level is a reason to read the help column and the notes on the data sheet, not a reason to wait for a fourth. This page counts what is plotted; it does not decide what a flat line means.

EXAMPLE

Filled Example

SAMPLE · INVENTED STUDENT

> Every number in the read-out is re-counted straight from the table above.

Ximena is invented, and so is every mark on this page. The table holds 8 sessions across 3 levels; when a student moves up is the team's call, and this sheet only records what was marked.

#	DATE	LEVEL	CARDS USED	CORRECT	GIVEN	PERCENT	HELP GIVEN
1	2/3	L1	1–6	3	6	50%	Reference page out, read the number together
2	2/5	L1	1–6	5	6	83%	Reference page out
3	2/10	L2	1–6	2	6	33%	Said the times-table line aloud first
4	2/12	L2	1–6	4	6	67%	Reference page out
5	2/17	L2	1–6	6	6	100%	None
6	2/19	L3	1–6	3	6	50%	Reference page out
7	2/24	L3	1–6	4	6	67%	Said the times-table line aloud first
8	2/26	L3	1–6	5	6	83%	None

READING THE NUMBERS

Session 1, Level 1: 3 of 6 cards, 50 percent. The first Level 3 session was 3 of 6, 50 percent, lower than the 100 percent of the session before it. The latest is 5 of 6, 83 percent. Each percent is its own row's correct count divided by its given count, rounded to the nearest whole number.

A LINE THIS SHEET COULD WRITE

"On the factor pairs task box (Level 3, four pairs to choose from), Ximena marked the matching pair on 3 of 6 cards on 2/19 and 5 of 6 on 2/26 (help given: none)."

HOW THE GRAPH WOULD LOOK

8 dots across, with the level box under each session reading 1, 1, 2, 2, 2, 3, 3, 3 for this table (page 18). The criterion field would hold whatever Ximena's team wrote, not a number this file supplies.

WHAT THIS EXAMPLE IS NOT

8 sessions of one invented child. It predicts nothing about a real student and sets no typical pace. It is here to show how the data sheet, graph and phrase bank read once real numbers are in them.

THE HELP COLUMN, FILLED IN

Every entry is what the adult did, in the same short words each time. None of them labels Ximena. The 2/17 row reads "none" in the help column with 6 of 6 correct: that is how independent work looks on paper.