

BOX METHOD MULTIPLICATION

Split into tens and ones, fill the boxes, add them up. 2-digit by 1-digit and 2-digit by 2-digit: fill, find the error, match, and cut and glue, with keys, a tracker and a family page. Print, or type the names and answers. PDF.

LOOK

My name: _____ Date: _____

Look at how the boxes work. Then try the next page.

$2 \text{ digits} \times 1$
 23×4

$\times \begin{array}{r} 20 \\ 3 \end{array}$

$\begin{array}{|c|c|} \hline 80 & 12 \\ \hline \end{array}$

- Split 23: 20 and 3.
- Multiply: $20 \times 4 = 80$ and $3 \times 4 = 12$.
- Add the boxes: $80 + 12 = 92$.

FILL THE BOXES

My name: _____ Date: _____

Fill in the empty boxes. Then add.

17×5
 $\times \begin{array}{r} 10 \\ 7 \end{array}$
 $\begin{array}{|c|c|c|} \hline 50 & & \\ \hline \end{array} + \begin{array}{|c|} \hline \\ \hline \end{array} = \begin{array}{|c|} \hline \\ \hline \end{array}$

49×5
 $\times \begin{array}{r} 40 \\ 9 \end{array}$
 $\begin{array}{|c|c|c|} \hline & 45 & \\ \hline \end{array} + \begin{array}{|c|} \hline \\ \hline \end{array} = \begin{array}{|c|} \hline \\ \hline \end{array}$

43×2
 $\times \begin{array}{r} 40 \\ 3 \end{array}$
 $\begin{array}{|c|c|c|} \hline & & \\ \hline \end{array} + \begin{array}{|c|} \hline \\ \hline \end{array} = \begin{array}{|c|} \hline \\ \hline \end{array}$

FIND THE ERROR

My name: _____ Date: _____

Is the box right? Circle it. Fix the total.

64×8
 $\times \begin{array}{r} 60 \\ 4 \end{array}$
 $\begin{array}{|c|c|} \hline 480 & 40 \\ \hline \end{array}$

right

wrong

Right total:

22×4
 $\times \begin{array}{r} 20 \\ 2 \end{array}$
 $\begin{array}{|c|c|} \hline 80 & 8 \\ \hline \end{array}$

right

wrong

Right total:

37×7
 $\times \begin{array}{r} 30 \\ 7 \end{array}$
 $\begin{array}{|c|c|} \hline & \\ \hline \end{array}$

right

wrong

Sam says 259

MATCH IT

My name: _____ Date: _____

Find the box that matches. Write the letter.

$72 \times 52 \rightarrow$
 $73 \times 25 \rightarrow$
 $96 \times 57 \rightarrow$
 $66 \times 59 \rightarrow$

$\times \begin{array}{r} 80 \\ 8 \end{array}$
 $\begin{array}{|c|c|} \hline 3200 & 320 \\ \hline \end{array}$

$\times \begin{array}{r} 90 \\ 6 \end{array}$
 $\begin{array}{|c|c|} \hline 4500 & 300 \\ \hline \end{array}$

$\times \begin{array}{r} 70 \\ 3 \end{array}$
 $\begin{array}{|c|c|} \hline 1400 & 60 \\ \hline \end{array}$

$\times \begin{array}{r} 40 \\ 5 \end{array}$
 $\begin{array}{|c|c|} \hline 800 & 100 \\ \hline \end{array}$

CUT AND GLUE

My name: _____ Date: _____

Cut out the steps. Glue them in order.

65×7

1

2

3

4

5

6

BOX METHOD TRACKER

STUDENT		TEACHER		MONTH	
PAGE	PAGE TYPE AND SET	ITEMS	RIGHT	DATE	NOTES
6	Fill the Boxes A	4			
7	Fill the Boxes B	4			
8	Fill the Boxes C	3			
9	Blank Boxes A	3			
10	Blank Boxes B	2			
11	Find the Error A	4			
12	Find the Error B	3			
13	Match It A	6			
14	Match It B	6			
15	Cut and Glue A	6			
16	Cut and Glue B	6			

29 Pages

6 Page Types

43 Problems

Area Model



One complete kit for one big idea: multiply by splitting the numbers into tens and ones, filling the boxes and adding them up. Fill, build, find the error, match, and cut and glue — on pages with room to work, untimed.

THREE STEPS

1 Look at the boxes together

Page 5 works one 2-digit by 1-digit and one 2-digit by 2-digit problem in the boxes: split the numbers into tens and ones, multiply each box, add the boxes. Read it aloud with the child, then turn to Fill the Boxes.

2 Hand over a page

Every student page opens with a name line and one short instruction, and the boxes are big. Nothing on it is written for you, so the child can start. The chart below says which page for which child; the dots at the top right are the only level code.

3 Check it, record it, send it home

The answer keys are pages 18, 19 and 20. Date each page on the tracker (page 21), roll a group up on page 22, and send the home page (24). A filled example is on page 25.

WHICH PAGE, WHEN

WHEN...	USE...
Meeting the box for the first time	Look, page 5 · Fill the Boxes A, page 6
Knows tens and ones, needs the boxes	Fill the Boxes B, page 7
Ready for 2 digits by 2 digits	Fill the Boxes C, page 8
Ready to build the box alone	Blank Boxes, pages 9, 10
Rushes and does not check	Find the Error, pages 11, 12
Needs to see the whole box first	Match It, pages 13, 14
Better with cutting and gluing	Cut and Glue, pages 15, 16, 17
Ready to send practice home	Home page 24 · notes: page 23

Everything inside (29 pages)

- **13 student pages** in 6 page types: Look, Fill the Boxes, Blank Boxes, Find the Error, Match It and Cut and Glue
- **43 different problems** (28 two-digit by one-digit, 15 two-digit by two-digit), totals from 48 to 5472, every one computed in code
- **18 cut-and-glue pieces** in 3 sets of six, **7 find-the-error boxes**
- **3 answer keys, 1 tracker, 1 class grid**
- **1 team note, 1 home page, 1 filled example, 1 phrase and strategy bank**
- **1 binder cover, 6 divider tabs** and a spine label

What makes it different

Every page uses the same box, so the child learns one picture. The split goes across the top and down the side, and the boxes hold the partial products. No page uses a number twice, and no answer sits where a child could guess it. Nothing is timed and nothing on a student page is scored.





My name: _____

Date _____



Look at how the boxes work. Then try the next page.

2 digits $\times$ 1

$$23 \times 4$$

 $\times$

20

3

4

80

12

1 Split 23: 20 and 3.

2 Multiply: $20 \times 4 = 80$ and $3 \times 4 = 12$.3 Add the boxes: $80 + 12 = 92$.2 digits $\times$ 2

$$24 \times 13$$

 $\times$

20

4

10

200

40

3

60

12

1 Split both: $20 + 4$ and $10 + 3$.

2 Multiply each box.

3 Add all four: $200 + 40 + 60 + 12 = 312$.



My name: _____

Date _____



Fill in the empty boxes. Then add.

1

$$\begin{array}{r} 17 \times 5 \\ \times 10 \quad 7 \\ \hline 50 \end{array}$$

Add the boxes

$$\boxed{} + \boxed{} = \boxed{}$$

2

$$\begin{array}{r} 49 \times 5 \\ \times 40 \quad 9 \\ \hline 45 \end{array}$$

Add the boxes

$$\boxed{} + \boxed{} = \boxed{}$$

3

$$\begin{array}{r} 43 \times 2 \\ \times 40 \quad 3 \\ \hline 6 \end{array}$$

Add the boxes

$$\boxed{} + \boxed{} = \boxed{}$$

4

$$\begin{array}{r} 48 \times 4 \\ \times 40 \quad 8 \\ \hline 160 \end{array}$$

Add the boxes

$$\boxed{} + \boxed{} = \boxed{}$$



My name: _____

Date _____



Split the number. Fill the boxes. Add.

1

86×5

×

Add the boxes

	+		=	
--	---	--	---	--

2

73×4

×

Add the boxes

	+		=	
--	---	--	---	--

3

66×9

×

Add the boxes

	+		=	
--	---	--	---	--



Show your work here.





My name: _____

Date _____



☐ Is the box right? Circle it. Fix the total.

1

$$\begin{array}{r} 64 \times 8 \\ \times \quad 60 \quad 4 \\ \hline 480 \quad 40 \end{array}$$

Sam says 520

right

wrong

Right total

2

$$\begin{array}{r} 22 \times 4 \\ \times \quad 20 \quad 2 \\ \hline 80 \quad 8 \end{array}$$

Sam says 88

right

wrong

Right total

3

$$\begin{array}{r} 37 \times 7 \\ \times \quad 30 \quad 7 \\ \hline 210 \quad 49 \end{array}$$

Sam says 259

right

wrong

Right total

4

$$\begin{array}{r} 59 \times 8 \\ \times \quad 50 \quad 9 \\ \hline 40 \quad 72 \end{array}$$

Sam says 112

right

wrong

Right total





My name: _____

Date _____



Find the box that matches. Write the letter.

1

$29 \times 2 \rightarrow$

2

$39 \times 3 \rightarrow$

3

$25 \times 8 \rightarrow$

4

$12 \times 4 \rightarrow$

5

$89 \times 9 \rightarrow$

6

$73 \times 3 \rightarrow$

A

 $\times$

80

9

9

720

81

B

 $\times$

70

3

3

210

9

C

 $\times$

10

2

4

40

8

D

 $\times$

20

9

2

40

18

E

 $\times$

20

5

8

160

40

F

 $\times$

30

9

3

90

27





My name: _____

Date _____



Cut out the steps. Glue them in order.

$$65 \times 7$$

1		2	
3		4	
5		6	



Cut on the dashed lines.

Ones next: $5 \times 7 = 35$	Add the boxes: $420 + 35$	Split 65 into 60 and 5.
Draw 2 boxes. Write 60 and 5 on top.	The total is 455.	Tens first: $60 \times 7 = 420$





STUDENT

TEACHER

MONTH

PAGE	PAGE TYPE AND SET	ITEMS	RIGHT	DATE	NOTES
6	Fill the Boxes A	4			
7	Fill the Boxes B	4			
8	Fill the Boxes C	3			
9	Blank Boxes A	3			
10	Blank Boxes B	2			
11	Find the Error A	4			
12	Find the Error B	3			
13	Match It A	6			
14	Match It B	6			
15	Cut and Glue A	6			
16	Cut and Glue B	6			
17	Cut and Glue C	6			

How to fill this in

Write how many items the child got right with no prompt, and the date. A blank means not tried yet, never wrong. There are 53 items on the 12 pages above; Look (page 5) is not scored. On a Cut and Glue page an item is one piece in the right place. Answer keys: pages 18, 19 and 20. Filled example: page 25.

THIS MONTH WE ARE WORKING ON (YOUR OWN WORDING)





Priya S. is invented; nothing on this page describes a real student. The blank tracker is on page 21.

STUDENT

TEACHER

MONTH

Priya S. (an invented student)

Ms. Rivera (invented)

October

PAGE	PAGE TYPE AND SET	ITEMS	RIGHT	DATE	NOTES
6	Fill the Boxes A	4	4	10/1	–
7	Fill the Boxes B	4	3	10/3	Wrote 18 for the tens box once; the zero was missing
8	Fill the Boxes C	3	3	10/6	–
9	Blank Boxes A	3	3	10/8	–
10	Blank Boxes B	2	–	–	–
11	Find the Error A	4	4	10/10	–
12	Find the Error B	3	2	10/13	Said right to a box with a wrong total once
13	Match It A	6	6	10/15	–
14	Match It B	6	–	–	–
15	Cut and Glue A	6	6	10/17	–
16	Cut and Glue B	6	5	10/20	Glued two of the steps in the wrong order
17	Cut and Glue C	6	–	–	–

How to read it

Priya S. has done **9 of 12** scored pages and got **36 of 39** items right with no prompt. **6** pages were all right. Every number here comes from the table above.

The family note this tracker would produce

“This month Priya finished 9 box-method pages and got 36 of 39 items right. She dropped a zero in a tens box once; checking that box against the number she split is next.” — every fact in it is a row of the table above.

What the table points to

Every page with a note is one item short of full: Fill the Boxes B, Find the Error B, Cut and Glue B. The 3 slips are different kinds, so there is no single next page; the note on each row says what to watch for on it. Pages left blank (3 of 12) are not tried yet, never wrong.





THANK YOU FOR USING THIS RESOURCE

Everything here was built for the teacher who has a table of children who each need a different amount of support with multiplying. If this helped, leaving feedback on TPT helps other teachers find it.

Something missing or wrong?

Please use the **Ask a Question** tab on the product page first — every question is read, and a fix to the file is a free update you re-download from **My Purchases**.

WHAT'S NEXT FROM THIS STORE

The data side of this skill, more 2-digit multiplication, the idea behind the split, and where multiplication starts.

Area Model Multiplication Probes
The data side of this skill: forms for a goal on the IEP.

2-Digit by 2-Digit Multiplication Probes
More 2-digit by 2-digit practice, timed forms with a graph.

Distributive Property of Multiplication Probes
The idea behind splitting a number into tens and ones.

Arrays and Repeated Addition Worksheets K-2
Where multiplication starts: rows, columns and equal groups.

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