



Get Ready for 5th Grade!!

Summer Mathematics Activities

Dear Parents, Guardians, and Students,

Summer is a time to relax, explore, and have fun while keeping learning skills strong. Research shows that students can lose up to a month of math learning over the summer. Regular math practice helps students maintain their knowledge and confidence and prepare for the next grade. To help prevent this "summer slide," we have provided a variety of fun and engaging math activities for students to enjoy throughout the summer.

Daily Math Practice

We encourage students to complete one First in Math assignment each day to strengthen their math skills and build fluency.

Using the Summer Math Activity List

- Complete the activities in the boxes and cross off each activity as it is completed.
- Have fun completing a choice activity.
- Record completed activities on the activity log.
- Bring your completed log to school and show it to your new teacher to receive a special gift!

Helpful Materials

Keep these items nearby as you complete your summer math activities:

- Math notebook/journal from the school year
- A folder for organizing activities
- Blank paper
- Pencils
- A deck of playing cards
- Board games
- Coins

Our IB Transdisciplinary Theme, *How We Express Ourselves*, encourages scholars to explore, communicate, and apply ideas. Mathematics offers opportunities for creativity, problem-solving, and critical thinking. Whether cooking, shopping, traveling, or playing games, children can think mathematically in everyday situations.

Most importantly, encourage your child to explain their thinking as they solve problems. Asking questions such as, "How did you figure it out?" helps deepen understanding, build confidence, and strengthen mathematical reasoning.

We wish you a safe, enjoyable, and mathematically engaging summer!

Sincerely,

The Hempstead Public Schools Mathematics Team

Summer Math Activity Log

Activity log for student entering grade_____. Record the dates and descriptions of the math activities you complete. Bring this log back to your new teacher in September.

Activity #	Date Completed	Description of Activity
Example	7/2/24	The Math Problem about drawing 2 dogs. <i>OR</i> choice activity, like Candy Land...
#1		
#2		
#3		
#4		
#5		
#6		
#7		
#8		
#9		
#10		
#11		
#12		
#13		
#14		
#15		
#16		
#17		
#18		
#19		
#20		

Student's Name: _____

Parent Signature: _____

Summer Math Activity Log

















Activity log for student entering grade_____. Record the dates and descriptions of the math activities you complete. Bring this log back to your new teacher in September.

Activity #	Date Completed	Description of Activity
#21		
#22		
#23		
#24		
#25		
#26		
#27		
#28		
#29		
#30		
#31		
#32		
#33		
#34		
#35		
#36		
#37		
#38		
#39		
#40		

Student's Name: _____

Parent Signature: _____

Complete these math activities this summer. Each time, choose an activity from the boxes below - or from the back. Cross off a box when you do it and record the activity on your math log.

Count by 7s to 84. Count backwards by 7s to zero.	Choose from the Problem Set!! 	Use the shapes you know to make a Fourth of July picture.	Count by 3 tenths to 30 tenths starting at 0 tenths.	Choose from the Problem Set!! 
Do counting squats while you count from 289 to 321. Can you do it backwards?	Choose from the Problem Set!! 	Choose from the Problem Set!! 	Solve $236 + 450$. Draw a picture to show your thinking.	Choose from the Problem Set!! 
Count by 10s from 70 to 300. Now count by 5s.	Choose from the Problem Set!! 	Choose from the Problem Set!! 	Choose from the Problem Set!! 	Use real coins or draw coins to show as many ways to make \$1 as you can.
Choose from the Problem Set!! 	Find some rectangles. Measure to figure out the perimeter. Can you figure out the area?	Choose from the Problem Set!! 	Make a story to go with $\frac{1}{4} + \frac{3}{4}$.	Choose from the Problem Set!! 
Write the numbers from 675 to 730.	Choose from the Problem Set!! 	Choose from the Problem Set!! 	Solve $674 - 392$. Draw a picture to show your thinking.	Choose from the Problem Set!! 
Choose from the Problem Set!! 	Choose from the Problem Set!! 	Measure 10 objects in your house using centimeters. What is the difference between the longest and shortest?	Choose from the Problem Set!! 	Make a story problem that goes with 8×7 .

Get Ready for Grade 5



Choice Activities



1. **Do i-Ready:** Lessons on the computer or tablet that are just right for your child! Great opportunity!!!! Sign in here: <https://login.i-ready.com/> or download the tablet app through Puffin Academy.
2. Complete a First in Math assignment [First In Math Online Math Practice - K 8 Fact Fluency](#)

3. Read a Cool Mathematics Book:

[A Chair for My Mother](#) by Vera B. Williams
[Benny's Pennies](#) by Pat Brisson
[Emeka's Gift](#) by Ifeoma Onyefulu
[Math Appeal](#) by Greg Tang
[My Painted House, My Friendly Chicken, and Me](#)
by Maya Angelou

[Out for the Count](#) by Kathryn Cox
[Pattern Fish](#) by Trudy Harris
[Rooster's Off to See the World](#) by Eric Carle
[The Greedy Triangle](#) by Marilyn Burns
[The Math Curse](#) by Jon Scieszka and Lane Smith
[How much is a Million](#) by David Schwartz

Find Mathematics Books to Read Online at Epic!: <https://www.getepic.com/>
Parents can sign up for free!

4. Use a cool mathematics website!

<http://www.gregtangmath.com/games>
www.aaamath.com
www.coolmath4kids.com
<http://pbskids.org/games/measurement/>
<https://www.prodigygame.com/>

www.mathplayground.com
www.primarygames.com/curriculum/math.htm
www.funbrain.com
www.zearn.org/
<https://www.ixl.com/math/>
<https://www.firstinmath.com/>

5. Do a counting activity or game:

Double Compare – Deal all the cards out. Put the set of cards facedown. Both players turn over the top two cards and add them to find the sum. The player with the larger number gets all four cards. If they are the same number both players turn over another set of cards and the larger sum takes all. The game is over when there are no more cards to turn over. Whoever has the most cards, wins. (Like “War” but with adding two cards.) **Extension:** Instead of adding the two numbers together, subtract the smaller from the larger to get the difference. The person with the smallest difference gets all four cards.

Close to 20 – Deal 5 cards to each player. Place them face up in front of you. Which three cards add up to be closest to 20? Ex. You turn over the following cards 5, 4, 10, ACE, and 3, and your opponent turns over an ACE, 8, 7, 2, and 3. You can make 19 with the 5, 4, and 10 and your opponent can make 18 with the 8, 7, and 3. You win because 19 is closer to 20.

Play a board game such as: Checkers, Memory, Chutes and Ladders, jigsaw puzzles, Parcheesi, Fish, Crazy Eights, Candy Land, Connect Four, Legos, K'Nex.

6. Complete one of the activity sheets provided at the end of this packet.

PROBLEM

SET

Name _____ Date _____

1. Rewrite the following numbers including commas where appropriate:

a. 1234 _____ b. 12345 _____ c. 123456 _____

d. 1234567 _____ e. 12345678901 _____

2. Solve each expression. Record your answer in standard form.

Expression	Standard Form
5 tens + 5 tens	
3 hundreds + 7 hundreds	
400 thousands + 600 thousands	
8 thousands + 4 thousands	

3. Represent each addend with place value disks in the place value chart. Show the composition of larger units from 10 smaller units. Write the sum in standard form.

a. 4 thousands + 11 hundreds = _____

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

b. 24 ten thousands + 11 thousands = _____

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

Name _____ Date _____

1. a. On the place value chart below, label the units, and represent the number 90,523.

--	--	--	--	--	--	--	--

- b. Write the number in word form.

- c. Write the number in expanded form.

2. a. On the place value chart below, label the units, and represent the number 905,203.

--	--	--	--	--	--	--	--

- b. Write the number in word form.

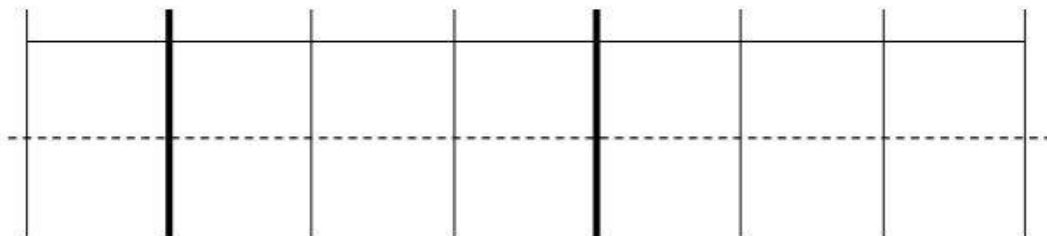
3. Complete the following chart:

Standard Form	Word Form	Expanded Form
	two thousand, four hundred eighty	
		$20,000 + 400 + 80 + 2$
	sixty-four thousand, one hundred six	
604,016		
960,060		

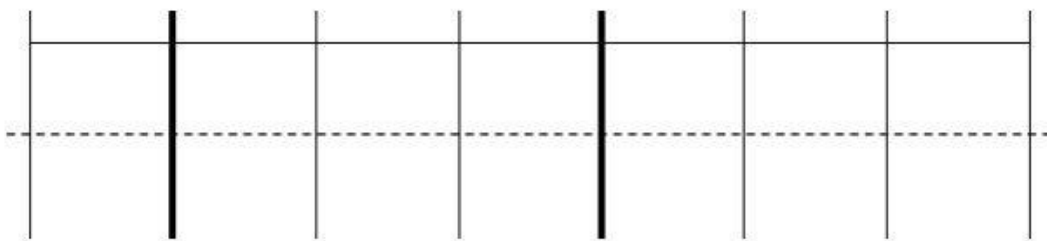
Name _____ Date _____

1. Label the units in the place value chart. Draw place value disks to represent each number in the place value chart. Use $<$, $>$, or $=$ to compare the two numbers. Write the correct symbol in the circle.

a. 600,015 ○ 60,015



b. 409,004 ○ 440,002



2. Compare the two numbers by using the symbols $<$, $>$, and $=$. Write the correct symbol in the circle.

a. 342,001 ○ 94,981

b. $500,000 + 80,000 + 9,000 + 100$ ○ five hundred eight thousand, nine hundred one

c. 9 hundred thousands 8 thousands 9 hundreds 3 tens ○ 908,930

d. 9 hundreds 5 ten thousands 9 ones ○ 6 ten thousands 5 hundreds 9 ones

3. Use the information in the chart below to list the height in feet of each mountain from least to greatest. Then, name the mountain that has the lowest elevation in feet.

Name of Mountain	Elevation in Feet (ft)
Allen Mountain	4,340 ft
Mount Marcy	5,344 ft
Mount Haystack	4,960 ft
Slide Mountain	4,240 ft

Name _____ Date _____

1. Round to the nearest thousand. Use the number line to model your thinking.

a. $6,700 \approx$ _____



b. $9,340 \approx$ _____



c. $16,401 \approx$ _____



d. $39,545 \approx$ _____



e. $399,499 \approx$ _____



f. $840,007 \approx$ _____



2. A pilot wanted to know about how many kilometers he flew on his last 3 flights. From NYC to London, he flew 5,572 km. Then, from London to Beijing, he flew 8,147 km. Finally, he flew 10,996 km from Beijing back to NYC. Round each number to the nearest thousand, and then find the sum of the rounded numbers to estimate about how many kilometers the pilot flew.

A

Number Correct: _____

Find the Midpoint

1.	0	10	
2.	0	100	
3.	0	1000	
4.	10	20	
5.	100	200	
6.	1000	2000	
7.	30	40	
8.	300	400	
9.	400	500	
10.	20	30	
11.	30	40	
12.	40	50	
13.	50	60	
14.	500	600	
15.	5000	6000	
16.	200	300	
17.	300	400	
18.	700	800	
19.	5700	5800	
20.	70	80	
21.	670	680	
22.	6700	6800	

23.	6000	7000	
24.	600	700	
25.	60	70	
26.	260	270	
27.	9260	9270	
28.	80	90	
29.	90	100	
30.	990	1000	
31.	9990	10,000	
32.	440	450	
33.	8300	8400	
34.	680	690	
35.	9400	9500	
36.	3900	4000	
37.	2450	2460	
38.	7080	7090	
39.	3200	3210	
40.	8630	8640	
41.	8190	8200	
42.	2510	2520	
43.	4890	4900	
44.	6660	6670	

Name _____ Date _____

1. Use the standard algorithm to solve the following subtraction problems.

$$\begin{array}{r} \text{a.} \quad 2,460 \\ -1,370 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b.} \quad 2,460 \\ -1,470 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c.} \quad 97,684 \\ -49,700 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d.} \quad 2,460 \\ -1,472 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e.} \quad 124,306 \\ -31,117 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f.} \quad 97,684 \\ -4,705 \\ \hline \end{array}$$

$$\begin{array}{r} \text{g.} \quad 124,006 \\ -121,117 \\ \hline \end{array}$$

$$\begin{array}{r} \text{h.} \quad 97,684 \\ -47,705 \\ \hline \end{array}$$

$$\begin{array}{r} \text{i.} \quad 124,060 \\ -31,117 \\ \hline \end{array}$$

Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement. Check your answers.

- There are 86,400 seconds in one day. If Mr. Liegel is at work for 28,800 seconds a day, how many seconds a day is he away from work?
- A newspaper company delivered 240,900 newspapers before 6 a.m. on Sunday. There were a total of 525,600 newspapers to deliver. How many more newspapers needed to be delivered on Sunday?
- A theater holds a total of 2,013 chairs. 197 chairs are in the VIP section. How many chairs are not in the VIP section?

Name _____

Date _____

1. Use the standard subtraction algorithm to solve the problems below.

$$\begin{array}{r} \text{a.} \quad 1\ 0\ 1,\ 6\ 6\ 0 \\ - \quad 9\ 1,\ 6\ 8\ 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b.} \quad 1\ 0\ 1,\ 6\ 6\ 0 \\ - \quad \quad 9,\ 9\ 8\ 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c.} \quad 2\ 4\ 2,\ 5\ 6\ 1 \\ - \quad 4\ 4,\ 7\ 0\ 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d.} \quad 2\ 4\ 2,\ 5\ 6\ 1 \\ - \quad 7\ 4,\ 9\ 8\ 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e.} \quad 1,\ 0\ 0\ 0,\ 0\ 0\ 0 \\ - \quad 5\ 9\ 2,\ 0\ 0\ 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f.} \quad 1,\ 0\ 0\ 0,\ 0\ 0\ 0 \\ - \quad 5\ 9\ 2,\ 5\ 0\ 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{g.} \quad 6\ 0\ 0,\ 6\ 5\ 8 \\ - \quad 5\ 9\ 2,\ 5\ 6\ 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{h.} \quad 6\ 0\ 0,\ 0\ 0\ 0 \\ - \quad 5\ 9\ 2,\ 5\ 6\ 9 \\ \hline \end{array}$$

Name _____

Date _____

1. Step 1: Draw and shade a tape diagram of the given fraction.
 Step 2: Record the decomposition as a sum of unit fractions.
 Step 3: Record the decomposition of the fraction two more ways.
 (The first one has been done for you.)



$$\frac{5}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$$

$$\frac{5}{8} = \frac{2}{8} + \frac{2}{8} + \frac{1}{8}$$

$$\frac{5}{8} = \frac{2}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$$

b. $\frac{9}{10}$

c. $\frac{3}{2}$

2. Step 1: Draw and shade a tape diagram of the given fraction.
 Step 2: Record the decomposition of the fraction in three different ways using number sentences.

a. $\frac{7}{8}$

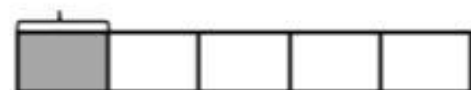
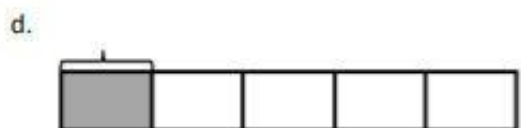
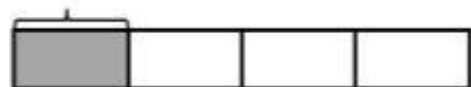
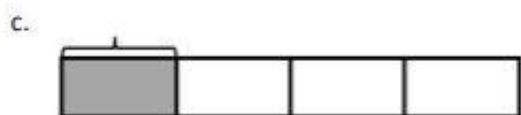
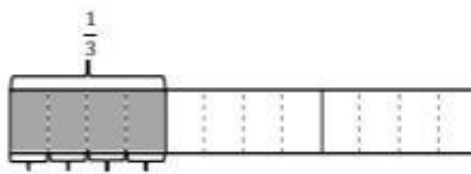
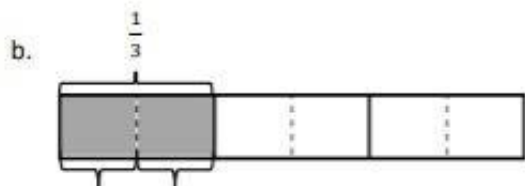
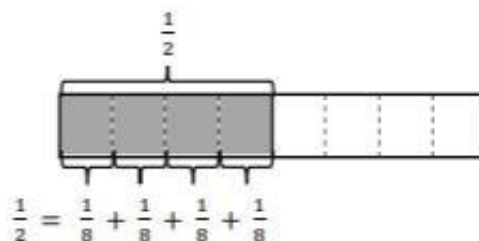
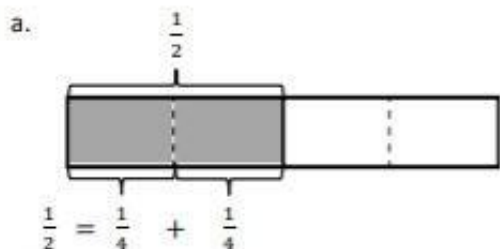
b. $\frac{5}{3}$

c. $\frac{7}{5}$

d. $1\frac{1}{3}$

Name _____ Date _____

1. The total length of each tape diagram represents 1. Decompose the shaded unit fractions as the sum of smaller unit fractions in at least two different ways. The first one has been done for you.

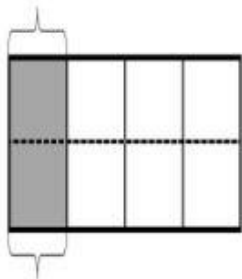


Name _____

Date _____

1. Draw horizontal lines to decompose each rectangle into the number of rows as indicated. Use the model to give the shaded area as both a sum of unit fractions and as a multiplication sentence.

a. 2 rows

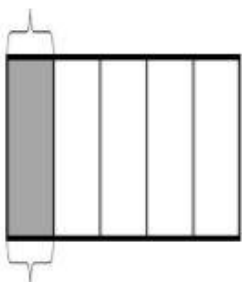


$$\frac{1}{4} = \frac{2}{\quad}$$

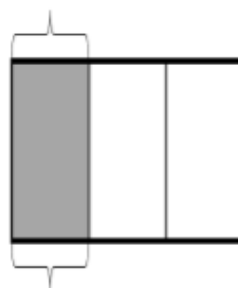
$$\frac{1}{4} = \frac{1}{8} + \frac{1}{8} = \frac{\quad}{\quad}$$

$$\frac{1}{4} = 2 \times \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

b. 2 rows



c. 4 rows



2. Draw area models to show the decompositions represented by the number sentences below. Represent the decomposition as a sum of unit fractions and as a multiplication sentence.

a. $\frac{1}{2} = \frac{3}{6}$

b. $\frac{1}{2} = \frac{4}{8}$

c. $\frac{1}{2} = \frac{5}{10}$

d. $\frac{1}{3} = \frac{2}{6}$

e. $\frac{1}{3} = \frac{4}{12}$

f. $\frac{1}{4} = \frac{3}{12}$

A

Number Correct: _____

Multiply Whole Numbers Times Fractions

1.	$\frac{1}{3} + \frac{1}{3} =$	
2.	$2 \times \frac{1}{3} =$	
3.	$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} =$	
4.	$3 \times \frac{1}{4} =$	
5.	$\frac{1}{5} + \frac{1}{5} =$	
6.	$2 \times \frac{1}{5} =$	
7.	$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} =$	
8.	$3 \times \frac{1}{5} =$	
9.	$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} =$	
10.	$4 \times \frac{1}{5} =$	
11.	$\frac{1}{10} + \frac{1}{10} + \frac{1}{10} =$	
12.	$3 \times \frac{1}{10} =$	
13.	$\frac{1}{8} + \frac{1}{8} + \frac{1}{8} =$	
14.	$3 \times \frac{1}{8} =$	
15.	$\frac{1}{2} + \frac{1}{2} =$	
16.	$2 \times \frac{1}{2} =$	
17.	$\frac{1}{3} + \frac{1}{3} + \frac{1}{3} =$	
18.	$3 \times \frac{1}{3} =$	
19.	$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} =$	
20.	$4 \times \frac{1}{4} =$	
21.	$\frac{1}{2} + \frac{1}{2} + \frac{1}{2} =$	
22.	$3 \times \frac{1}{2} =$	

23.	$\frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} =$	
24.	$4 \times \frac{1}{3} =$	
25.	$\frac{5}{6} =$	___ $\times \frac{1}{6}$
26.	$\frac{5}{6} =$	$5 \times$ —
27.	$\frac{5}{8} =$	$5 \times$ —
28.	$\frac{5}{8} =$	___ $\times \frac{1}{8}$
29.	$\frac{7}{8} =$	$7 \times$ —
30.	$\frac{7}{10} =$	$7 \times$ —
31.	$\frac{7}{8} =$	___ $\times \frac{1}{8}$
32.	$\frac{7}{10} =$	___ $\times \frac{1}{10}$
33.	$\frac{6}{6} =$	$6 \times$ —
34.	$1 =$	$6 \times$ —
35.	$\frac{8}{8} =$	___ $\times \frac{1}{8}$
36.	$1 =$	___ $\times \frac{1}{8}$
37.	$9 \times \frac{1}{10} =$	
38.	$7 \times \frac{1}{5} =$	
39.	$1 =$	$3 \times$ —
40.	$7 \times \frac{1}{12} =$	
41.	$1 =$	___ $\times \frac{1}{5}$
42.	$\frac{3}{5} =$	$\frac{1}{5} + \frac{1}{5} +$ —
43.	$3 \times \frac{1}{4} =$	— $+ \frac{1}{4} + \frac{1}{4}$
44.	$1 =$	— $+$ — $+$ —

Name _____

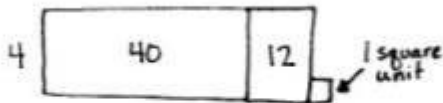
Date _____

1. Solve $37 \div 2$ using an area model. Use long division and the distributive property to record your work.

$$\begin{array}{r} 18 R1 \\ 2 \overline{)37} \\ \underline{-2} \\ 17 \\ \underline{-16} \\ 1 \end{array}$$

$(20 \div 2) + (16 \div 2)$
 $= 10 + 8$
 $= 18$
 $(18 \times 2) + 1 = 37$

2. Solve $76 \div 3$ using an area model. Use long division and the distributive property to record your work.
3. Carolina solved the following division problem by drawing an area model.



- a. What division problem did she solve?
- b. Show how Carolina's model can be represented using the distributive property.

Solve the following problems using the area model. Support the area model with long division or the distributive property.

4. $48 \div 3$	5. $49 \div 3$
6. $56 \div 4$	7. $58 \div 4$
8. $66 \div 5$	9. $79 \div 3$

Name _____

Date _____

1. Divide, and then check using multiplication.

a. $1,672 \div 4$

b. $1,578 \div 4$

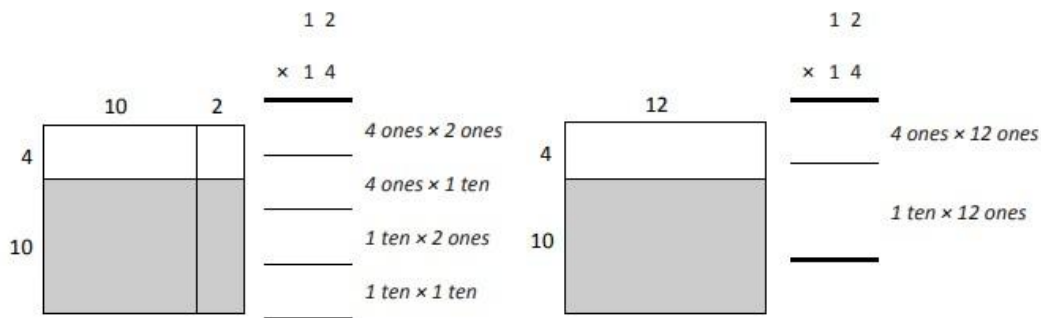
c. $6,948 \div 2$

d. $8,949 \div 4$

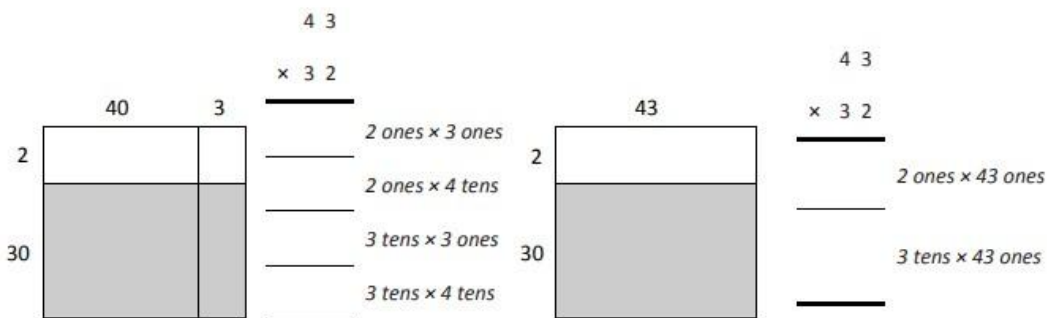
e. $7,569 \div 2$

Name _____ Date _____

1. Solve 14×12 using 4 partial products and 2 partial products. Remember to think in terms of units as you solve. Write an expression to find the area of each smaller rectangle in the area model.



2. Solve 32×43 using 4 partial products and 2 partial products. Match each partial product to its area on the models. Remember to think in terms of units as you solve.



3. Solve 57×15 using 2 partial products. Match each partial product to its rectangle on the area model.

4. Solve the following using 2 partial products. Visualize the area model to help you.

a. 25

$\times 46$

_____ \times _____

_____ \times _____

b. 18

$\times 62$

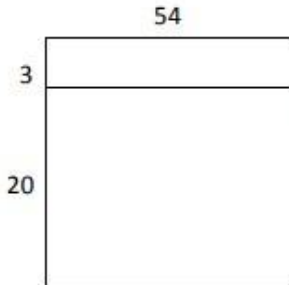
_____ \times _____

_____ \times _____

Name _____

Date _____

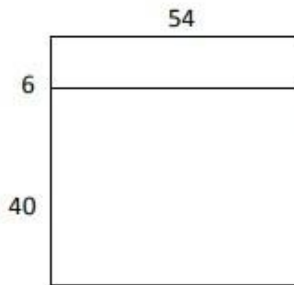
1. Express 23×54 as two partial products using the distributive property. Solve.



$$23 \times 54 = (\text{___ fifty-fours}) + (\text{___ fifty-fours})$$

$$\begin{array}{r} 54 \\ \times 23 \\ \hline \\ \hline \end{array} \quad \begin{array}{l} 3 \times \text{___} \\ 20 \times \text{___} \end{array}$$

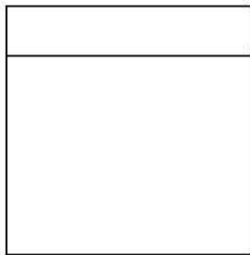
2. Express 46×54 as two partial products using the distributive property. Solve.



$$46 \times 54 = (\text{___ fifty-fours}) + (\text{___ fifty-fours})$$

$$\begin{array}{r} 54 \\ \times 46 \\ \hline \\ \hline \end{array} \quad \begin{array}{l} \text{___} \times \text{___} \\ \text{___} \times \text{___} \end{array}$$

3. Express 55×47 as two partial products using the distributive property. Solve.



$$55 \times 47 = (\text{___} \times \text{___}) + (\text{___} \times \text{___})$$

$$\begin{array}{r} 47 \\ \times 55 \\ \hline \\ \hline \end{array} \quad \begin{array}{l} \text{___} \times \text{___} \\ \text{___} \times \text{___} \end{array}$$

4. Solve the following using 2 partial products.

$$\begin{array}{r} 58 \\ \times 45 \\ \hline \\ \hline \end{array} \quad \begin{array}{l} \text{___} \times \text{___} \\ \text{___} \times \text{___} \end{array}$$

