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Multi-Digit Addition Review

1 Solve the problems below. Show all your work.

$$\begin{array}{r} 120 \\ + 207 \\ \hline \end{array}$$

$$\begin{array}{r} 459 \\ + 320 \\ \hline \end{array}$$

$$\begin{array}{r} 533 \\ + 429 \\ \hline \end{array}$$

$$\begin{array}{r} 332 \\ + 845 \\ \hline \end{array}$$

$$\begin{array}{r} 457 \\ + 372 \\ \hline \end{array}$$

$$\begin{array}{r} 538 \\ + 975 \\ \hline \end{array}$$

$$\begin{array}{r} 347 \\ 576 \\ + 423 \\ \hline \end{array}$$

$$\begin{array}{r} 1,438 \\ 2,754 \\ + 3,626 \\ \hline \end{array}$$

2 Rewrite these problems in vertical form. Then solve them. Show all your work.

example $583 + 645$

$$\begin{array}{r} 1 \\ 583 \\ + 645 \\ \hline 1,228 \end{array}$$

a $276 + 986$

b $362 + 1,534$



CHALLENGE

3 Use two numbers from the box to complete each addition problem below. You will use some numbers more than once.

97	204	297	405	498	607
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$$\begin{array}{r} \boxed{} \\ + \boxed{} \\ \hline 3 \quad 0 \quad 1 \end{array}$$

$$\begin{array}{r} \boxed{} \\ + \boxed{} \\ \hline 3 \quad 9 \quad 4 \end{array}$$

$$\begin{array}{r} \boxed{} \\ + \boxed{} \\ \hline 1, \quad 0 \quad 1 \quad 2 \end{array}$$

$$\begin{array}{r} \boxed{} \\ + \boxed{} \\ \hline 1, \quad 1 \quad 0 \quad 5 \end{array}$$

$$\begin{array}{r} \boxed{} \\ + \boxed{} \\ \hline 7 \quad 0 \quad 2 \end{array}$$

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Multi-Digit Subtraction Review

1 Solve the problems below. Show all your work.

$$\begin{array}{r} 649 \\ - 514 \\ \hline \end{array}$$

$$\begin{array}{r} 2,964 \\ - 723 \\ \hline \end{array}$$

$$\begin{array}{r} 482 \\ - 391 \\ \hline \end{array}$$

$$\begin{array}{r} 3,851 \\ - 1,470 \\ \hline \end{array}$$

$$\begin{array}{r} 4,582 \\ - 950 \\ \hline \end{array}$$

$$\begin{array}{r} 6,739 \\ - 547 \\ \hline \end{array}$$

$$\begin{array}{r} 385 \\ - 197 \\ \hline \end{array}$$

$$\begin{array}{r} 7,846 \\ - 4,928 \\ \hline \end{array}$$

2 Rewrite these problems in vertical form. Solve them and then add the numbers to check your answer. Show all your work.

example $906 - 458$ $\begin{array}{r} 89 \\ 906 \\ - 458 \\ \hline 448 \end{array}$ $\begin{array}{r} 11 \\ 458 \\ + 448 \\ \hline 906 \end{array}$	a $607 - 569$	b $8,046 - 753$
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CHALLENGE

3 Complete these problems. There is more than one correct solution to the first two problems.

a

$$\begin{array}{r} \square 0 1 \\ - \square \square \\ \hline \square 6 7 \end{array}$$

b

$$\begin{array}{r} \square 7 \square \\ - \square \square 2 \\ \hline 3 \square \square \end{array}$$

c

$$\begin{array}{r} 8 6 \square \\ - \square 4 1 \\ \hline 5 1 \square \end{array}$$

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Multiplication & Division Practice

1 Solve the following multiplication and division problems.

$$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

$32 \div 4 = \underline{\quad\quad}$

$20 \div 5 = \underline{\quad\quad}$

$16 \div 8 = \underline{\quad\quad}$

$24 \div 3 = \underline{\quad\quad}$

$24 \div 4 = \underline{\quad\quad}$

$15 \div 3 = \underline{\quad\quad}$

$40 \div 5 = \underline{\quad\quad}$

$36 \div 6 = \underline{\quad\quad}$

2 Fill in the missing numbers.

$$\begin{array}{r} 9 \\ \times 7 \\ \hline \square \end{array}$$

$$\begin{array}{r} 3 \\ \times 0 \\ \hline \square \end{array}$$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \square \end{array}$$

$$\begin{array}{r} 1 \\ \times 5 \\ \hline \square \end{array}$$

$$\begin{array}{r} 5 \\ \times 8 \\ \hline \square \end{array}$$

$$\begin{array}{r} 7 \\ \times \square \\ \hline 4 \ 2 \end{array}$$

$$\begin{array}{r} 5 \\ \times \square \\ \hline 4 \ 0 \end{array}$$

$$\begin{array}{r} \square \\ \times 8 \\ \hline 6 \ 4 \end{array}$$

$$\begin{array}{r} \square \\ \times 4 \\ \hline 1 \ 6 \end{array}$$

$$\begin{array}{r} 3 \\ \times \square \\ \hline 1 \ 8 \end{array}$$

3 Solve the following multiplication problems.

$$\begin{array}{r} 4 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 1,000 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 1,000 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 1,000 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 1,000 \\ \hline \end{array}$$



CHALLENGE

4 Fill in the missing numbers.

$300 \div \underline{\quad\quad} = 3$

$8,000 \div \underline{\quad\quad} = 1,000$

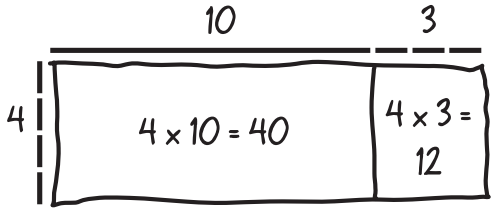



$40 \div \underline{\quad\quad} = 4$

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Fill the Frames

Label each array frame below. Then fill it in with labeled rectangles. Write an addition equation to show how you got the total. Then write a multiplication equation to match the array.

Labeled Array Frame & Rectangle	Addition Equation	Multiplication Equation
example 	$40 + 12 = 52$	$4 \times 13 = 52$
1 		
2 		
3 		

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Addition & Multiplication Puzzles

1 Complete the addition puzzle box below. The sums of the rows and the diagonals are in bold boxes.

example			a
			213
125	25	50	200
50	150	33	233
13	25	350	388
			625

			225
	13		179
80		30	160
75	13	50	
			166

2 Complete the multiplication puzzle box below. The products of the rows and the diagonals are in bold boxes.

example			a
			2,000
10	2	1	20
2	2	100	400
1,000	3	2	6,000
			40

			60
100		3	600
		1,000	8,000
	3	2	60
			400

3 Complete each equation below.

ex $2 \times \underline{1} \times 1,000 = 2,000$

b $3 \times 3 \times \underline{\hspace{2cm}} = 90$

d $3 \times \underline{\hspace{2cm}} \times 10 = 60$

a $\underline{\hspace{2cm}} \times 4 \times 100 = 800$

c $1 \times \underline{\hspace{2cm}} \times 1,000 = 8,000$

e $2 \times 2 \times \underline{\hspace{2cm}} = 400$

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Multiplication Puzzles

Complete the multiplication puzzle boxes below. The products of the rows and the diagonals are in bold boxes.

example

			42
1	0	2	0
6	3	3	54
7	1	8	56
			24

1

			60
3			75
7	2		42
6	2		72
			36

2

			60
5	5		75
	4	5	60
	5		150
			120

3

			100
		5	160
2	5		50
4	3		48
			80

 **4**

			240
	2	20	280
		4	60
4	6		72
			63

 **5**

			120
3			360
	6	10	420
5	25		250
			36

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Using Partial Products to Solve Multiplication Problems

Use partial products to solve each multiplication problem below.

Fill in the array to show the partial products.	Use numbers to show your work.		
<p>example</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>23</p> <p>• • •</p> <p>•</p> <p>•</p> <p>•</p> <p>6 •</p> <p>•</p> <p>•</p> </div> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 10px;"> $\begin{array}{r} 20 \\ \times 6 \\ \hline 120 \end{array}$ </td> <td style="padding: 10px;"> $\begin{array}{r} 3 \\ \times 6 \\ \hline 18 \end{array}$ </td> </tr> </table> </div>	$\begin{array}{r} 20 \\ \times 6 \\ \hline 120 \end{array}$	$\begin{array}{r} 3 \\ \times 6 \\ \hline 18 \end{array}$	$\begin{array}{r} 23 \\ \times 6 \\ \hline 6 \times 20 = 120 \\ 6 \times 3 = + 18 \\ \hline 138 \end{array}$
$\begin{array}{r} 20 \\ \times 6 \\ \hline 120 \end{array}$	$\begin{array}{r} 3 \\ \times 6 \\ \hline 18 \end{array}$		
<p>1</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>24</p> <p>• • • •</p> <p>•</p> <p>•</p> <p>•</p> <p>7 •</p> <p>•</p> <p>•</p> </div> <table border="1" style="border-collapse: collapse; width: 300px; height: 100px;"> <tr> <td style="width: 300px; height: 100px;"></td> <td style="width: 80px; height: 100px;"></td> </tr> </table> </div>			$\begin{array}{r} 24 \\ \times 7 \\ \hline \end{array}$
<p>2</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>36</p> <p>• • • • • •</p> <p>•</p> <p>•</p> <p>•</p> <p>6 •</p> <p>•</p> <p>•</p> </div> <table border="1" style="border-collapse: collapse; width: 300px; height: 100px;"> <tr> <td style="width: 300px; height: 100px;"></td> <td style="width: 80px; height: 100px;"></td> </tr> </table> </div>			$\begin{array}{r} 36 \\ \times 6 \\ \hline \end{array}$
<p>3</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>47</p> <p>• • • • • • •</p> <p>•</p> <p>•</p> <p>•</p> <p>4 •</p> <p>•</p> </div> <table border="1" style="border-collapse: collapse; width: 300px; height: 100px;"> <tr> <td style="width: 300px; height: 100px;"></td> <td style="width: 80px; height: 100px;"></td> </tr> </table> </div>			$\begin{array}{r} 47 \\ \times 4 \\ \hline \end{array}$

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Solving Equations

1 Fill in the missing number in each equation. You do not need to explain your answers.

example $30 + \underline{4} = 34$ The missing number must be 4, because $30 + 4 = 34$.		
a $40 + \underline{\hspace{2cm}} = 52$	b $\underline{\hspace{2cm}} \times 10 = 110$	c $32 = \underline{\hspace{2cm}} \times 4$
d $\underline{\hspace{2cm}} \div 6 = 7$	e $40 = \underline{\hspace{2cm}} - 8$	f $4 + \underline{\hspace{2cm}} = 90$

2 Sometimes a letter is used instead of a blank to show a missing number in an equation. Figure out what number the letter in each equation represents. You do not need to explain your answers.

example $3 \times a = 6$ The letter a represents 2, because $3 \times 2 = 6$. $a = 2$			
a $72 = a \times 9$ $a =$	b $a + 90 = 110$ $a =$	c $49 = a \times 7$ $= a$	d $a - 20 = 80$ $a =$
e $45 \div a = 9$ $a =$	f $a + 32 = 46$ $a =$	g $56 = a \times 8$ $a =$	h $78 = 85 - a$ $a =$



CHALLENGE

3 Write four different equations in which a would have to be equal to 5.


a $a + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	b $\underline{\hspace{2cm}} = \underline{\hspace{2cm}} \times a$
c $\underline{\hspace{2cm}} \div a = \underline{\hspace{2cm}}$	d $\underline{\hspace{2cm}} = a - \underline{\hspace{2cm}}$

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What's the Rule?

For each pattern, fill in what comes next. Then use words to describe the rule that makes each pattern.

ex	a Pattern 1, 4, 7, 10, <u>13</u> , <u>16</u> , <u>19</u>
	b Rule <i>Add 3 each time.</i>
1	a Pattern 3, 6, 12, _____, _____, _____
	b Rule
2	a Pattern 16, 8, 4, _____, _____, _____
	b Rule
3	a Pattern 6.13, 7.26, 8.39, _____, _____, _____
	b Rule
4	a Pattern $2\frac{1}{8}$, $3\frac{1}{4}$, $4\frac{3}{8}$, $5\frac{1}{2}$, _____, _____, _____
	b Rule
 5	a Pattern $\frac{18}{9}$, $\frac{15}{9}$, $1\frac{1}{3}$, 1, _____, _____, _____
	b Rule

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Number Patterns & Divisibility

1 Fill in the missing numbers in each count-by sequence.

a 2	2, 4, 6, 8, 10, 12, _____, _____, _____, _____, _____, _____
b 5	5, 10, 15, 20, 25, _____, _____, _____, _____, _____, _____
c 10	10, 20, 30, 40, _____, _____, _____, _____, _____, _____

2 Write a sentence to explain what the numbers in each sequence above have in common. Hint: *Look at the numbers in the ones place.*

a All the count-by-2 numbers

b All the count-by-5 numbers

c All the count-by-10 numbers

3 All the numbers in a count-by sequence are divisible by the same number. For example, all the numbers in the count-by-2 sequence are divisible by 2. Think about whether each number below is divisible by 2, 5, and 10.

Number	Divisible by 2?	Divisible by 5?	Divisible by 10?
ex 96	yes	no	no
a 40			
b 75			
c 37			
d 110			

Number	Divisible by 2?	Divisible by 5?	Divisible by 10?
e 364			
f 930			
g 361			
h 576			
i 785			

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Multiplication Review

1 Complete the multiplication tables below.

ex

×	5	2	9	3	8	6	7	4
2	10	4	18	6	16	12	14	8

a

×	5	2	9	3	8	6	7	4
3								

b

×	5	2	9	3	8	6	7	4
7								

c

×	5	2	9	3	8	6	7	4
9								

2 Fill in the missing numbers.

$$\begin{array}{r} 4 \\ \times \square \\ \hline 32 \end{array}$$

$$\begin{array}{r} 6 \\ \times \square \\ \hline 42 \end{array}$$

$$\begin{array}{r} \square \\ \times 8 \\ \hline 40 \end{array}$$

$$\begin{array}{r} \square \\ \times 8 \\ \hline 64 \end{array}$$

$$\begin{array}{r} 8 \\ \times \square \\ \hline 48 \end{array}$$

3 Complete each division fact.

$45 \div 5 = \underline{\quad}$

$18 \div 6 = \underline{\quad}$

$28 \div 4 = \underline{\quad}$

$36 \div 6 = \underline{\quad}$

4 Use the standard algorithm to multiply each pair of numbers.

$$\begin{array}{r} 47 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 286 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 109 \\ \times 13 \\ \hline \end{array}$$

$$\begin{array}{r} 758 \\ \times 54 \\ \hline \end{array}$$