

Ms. Rathgeber's Math Magicians

Dear Parents,

Thank you so much for your support and patience in this difficult time as we work to ensure that your children do not miss too much instruction while at home. This work is optional, but of course, recommended.

I have compiled work that your child should be able to do with some help to ensure that they continue to make progress on vital skills while school is closed. I have enclosed supports such as a multiplication chart or hundreds chart for students to use as a reference. Feel free to find objects around the home to count and model problems such as paper clips or coins for your child to use.

Your child may need help from you such as: reading the directions, reading the word problems, explaining how to solve the problem, reminders to check their work, reminders to draw a picture to solve the problem, reminders to use their place value chart. If you have any concerns about how hard the work is for your child, please skip that problem or that page and contact me. My hope is that this work is challenging, but not overly frustrating. Completing 1-2 pages per day is plenty of work. Alternatively, you can set a timer for 15-30 minutes and stop working when the timer goes off.

If your child becomes very frustrated, feel free to contact me and I will be happy to speak with them and coach them through their frustration. This should not be an unpleasant or painful experience, and if they are starting to get upset, it is absolutely ok to take a break and try again later or get in touch with me.

If you find the work difficult or confusing, or are unsure how to explain it, you can contact me and I will do my best to explain it. Khan Academy is a good place to go for explanations and videos of how to solve math problems.

Additional activities you can do at home are practicing flash cards or playing board games or card games that involve math.

Please connect with my classroom using Class Dojo for updates and assignments moving forward.

I am happy to support you in any way I can during this difficult time. You can always send me a message on Class Dojo or text me at: 201-919-8094.

Please take care of yourselves, your wonderful children, and your families and friends and I hope to see you all soon!

Sincerely,

Ms. Rathgeber

Place Value Chart

Thousands			Hundred		
Hundred	Ten	One	Hundreds	Tens	Ones

hundreds

hundreds

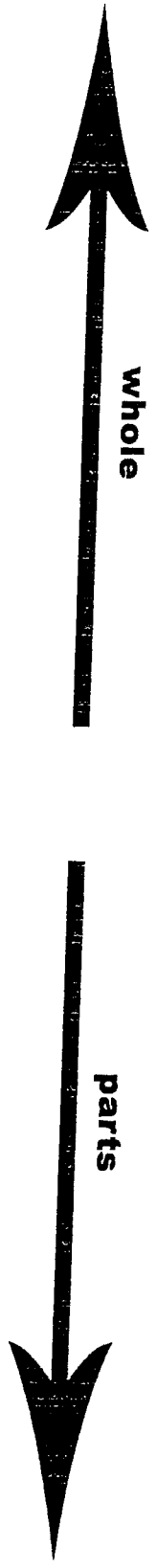
hundredths

thousandths

and

whole

parts



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Multiplication Table (15 x 15)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
3	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45
4	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
5	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
6	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90
7	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105
8	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
9	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135
10	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
11	11	22	33	44	55	66	77	88	99	110	121	132	143	154	165
12	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
13	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195
14	14	28	42	56	70	84	98	112	126	140	154	168	182	196	210
15	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225

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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 $362 + 1,534$
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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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$$\begin{array}{r} \boxed{} \\ + \boxed{} \\ \hline 301 \end{array}$$

$$\begin{array}{r} \boxed{} \\ + \boxed{} \\ \hline 394 \end{array}$$

$$\begin{array}{r} \boxed{} \\ + \boxed{} \\ \hline 1,012 \end{array}$$

$$\begin{array}{r} \boxed{} \\ + \boxed{} \\ \hline 1,105 \end{array}$$

$$\begin{array}{r} \boxed{} \\ + \boxed{} \\ \hline 702 \end{array}$$

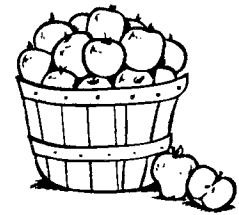
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Addition Story Problems

Solve the problems below. Show all your work.

1 Last week, Jose picked 325 pounds of apples. Gloria picked 236 pounds of apples. How many pounds of apples did Jose and Gloria pick altogether? Show all your work.

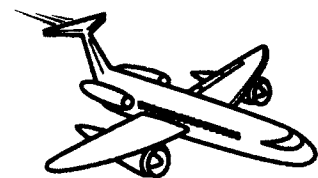


2 The year Marcus was born, there were 2,308 people living in the town where his parents lived. Now Marcus is nine years old, and the town has 856 more people than it did when he was born. How many people live in the town where Marcus lives? Show all your work.



CHALLENGE

3 Fran is flying in an airplane. Right now it is 13,500 feet above the ground. It will go 16,800 more feet before it stops going any higher. How high will the airplane be then? Show all your work.



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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.

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

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

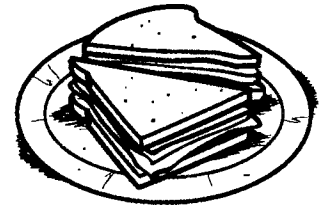
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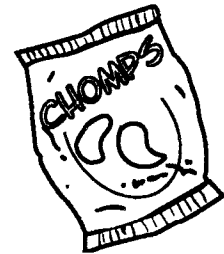
Subtraction Story Problems

Solve the problems below. Show all your work.

- 1 Last week the cafeteria served 486 breakfast sandwiches. This week they served 538 breakfast sandwiches. How many more breakfast sandwiches did they serve this week?

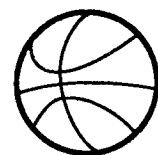


- 2 There were 6,742 bags of potato chips stored in the cafeteria. They served 781 of them at lunch. How many bags of potato chips are left?



CHALLENGE

- 3 At the basketball game last night, the home team was losing by 48 points at half time, so fans started to leave. If there were 18,862 people at the game when it started and 6,946 went home at half time, how many people were still at the game for the second half?



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Add, Subtract & Multiply

1 Solve the addition and subtraction problems below Show all your work.

$$\begin{array}{r} \$1.74 \\ + \$2.25 \\ \hline \end{array}$$

$$\begin{array}{r} \$20.71 \\ + \$6.55 \\ \hline \end{array}$$

$$\begin{array}{r} \$43.53 \\ + \$7.18 \\ \hline \end{array}$$

$$\begin{array}{r} \$8.14 \\ + \$7.03 \\ \hline \end{array}$$

$$\begin{array}{r} \$5.32 \\ - \$2.81 \\ \hline \end{array}$$

$$\begin{array}{r} \$3.42 \\ - \$1.84 \\ \hline \end{array}$$

$$\begin{array}{r} \$54.66 \\ - \$6.93 \\ \hline \end{array}$$

$$\begin{array}{r} \$3.04 \\ - \$1.26 \\ \hline \end{array}$$

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

<p>example $\\$2.96 + \\8.45</p> $\begin{array}{r} 11 \\ 296 \\ + 845 \\ \hline 1141 \end{array}$	<p>a $\\$4.72 + \\2.39</p>	<p>b $\\$506.00 - \\3.57</p>
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3 Complete these multiplication problems.

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

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

$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

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

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

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

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

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

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

$$\begin{array}{r} 0 \\ \times 9 \\ \hline \end{array}$$

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

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

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Shopping Problems

Solve the problems below. Show all your work.

1 George, Nico, and Brandon went to the store. George spent \$1.86 on fruit. Nico spent \$2.03 on a drink. Brandon spent \$1.45 on candy. How much did they spend altogether?

2 Emma had \$5.80 in her pocket when she went to the store. If she spent \$3.97, how much money did she have left?



CHALLENGE

3 Susie has three brothers who are triplets. For their birthday, she bought each brother a rubber ball that cost 71¢ and a T-shirt that cost \$12.99. How much did she spend altogether on their birthday presents?



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Addition, Subtraction & Clock Problems

1 Solve the problems below Show all your work.

$$\begin{array}{r} 845 \\ + 127 \\ \hline \end{array}$$

$$\begin{array}{r} 795 \\ + 109 \\ \hline \end{array}$$

$$\begin{array}{r} 4,639 \\ + 2,467 \\ \hline \end{array}$$

$$\begin{array}{r} 379 \\ + 196 \\ \hline \end{array}$$

$$\begin{array}{r} 6,536 \\ - 2,618 \\ \hline \end{array}$$

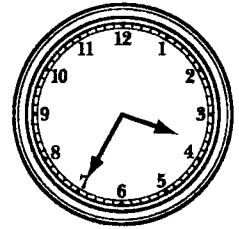
$$\begin{array}{r} 805 \\ - 108 \\ \hline \end{array}$$

$$\begin{array}{r} 2,305 \\ - 107 \\ \hline \end{array}$$

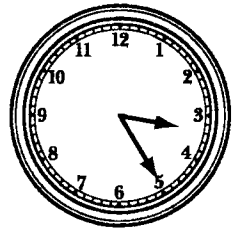
$$\begin{array}{r} 6,002 \\ - 336 \\ \hline \end{array}$$

2 Use the clocks to solve the problems below.

a Anna leaves school at 3:10 to walk home. The clock below shows what time she gets home. How long does it take Anna to walk home?

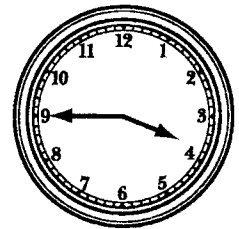


b Joseph leaves school at 3:05 to take the bus home. The clock below shows what time he gets home. How long is Joseph's bus ride?



CHALLENGE

c Maribel leaves school at 3:10 to walk home. One day, she stopped at the store on the way home and spent 20 minutes shopping. If she got home at the time shown on the clock, how much time did she spend walking?



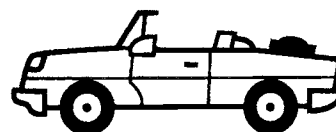
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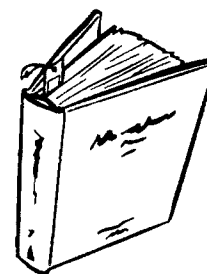
Miles, Books & Jellybeans

Solve the problems below. Show all your work.

1 Felipe's family is driving to see his grandmother. Altogether, they have to drive 856 miles. If they have gone 269 miles so far, how much farther do they have to drive?



2 In our classroom library, we had 326 books. We gave 38 books to the other fourth grade classroom, but our teacher got 97 more books for our classroom library. How many books do we have in our classroom library now?



CHALLENGE

3 At the school fair, students were guessing how many jellybeans were in a jar. Nicky guessed there were 296 jellybeans. Caitlyn guessed there were 435 jellybeans. Samira guessed a number that was 52 more than Nicky and Caitlyn's put together. What was Samira's guess?



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Multiplication & Division Facts

1 Solve the problems below.

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

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

$$\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$$

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

$$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$$

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

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

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

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

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

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

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

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

$63 \div 7 = \underline{\quad\quad}$

$42 \div 7 = \underline{\quad\quad}$

$36 \div 4 = \underline{\quad\quad}$

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

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

$18 \div 3 = \underline{\quad\quad}$

$6 \div 3 = \underline{\quad\quad}$

$14 \div 2 = \underline{\quad\quad}$

2 Fill in the missing numbers.

$$\begin{array}{r} 6 \\ \times 3 \\ \hline \square \end{array}$$

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

$$\begin{array}{r} 5 \\ \times 7 \\ \hline \square \end{array}$$

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

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

$$\begin{array}{r} 3 \\ \times \square \\ \hline 6 \end{array}$$

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

$$\begin{array}{r} \square \\ \times 5 \\ \hline 15 \end{array}$$

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

$$\begin{array}{r} 9 \\ \times \square \\ \hline 72 \end{array}$$



CHALLENGE

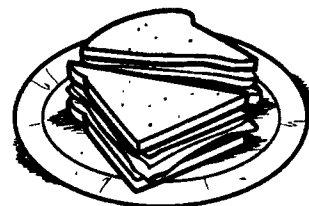
3 Use words and/or numbers to show how you could use the answer to 4×8 to solve 4×16 .

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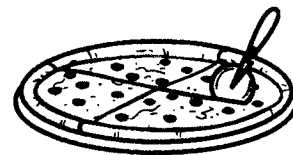
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Sandwiches, Pizza & Books

1 Rodney had a friend over on Saturday. His dad took them out for sandwiches. Each person (Rodney, his dad, and his friend) got a sandwich for \$6. How much did they spend on sandwiches altogether? Show all your work.

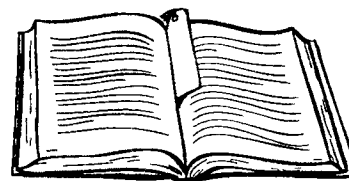


2 Jasmine had a pizza party with 3 of her friends to celebrate the last day of school. They ordered 2 pizzas. Each pizza had 8 slices. They all ate the same amount of pizza and finished both pizzas. How many pieces did each person eat? Show all your work.



CHALLENGE

3 There were 12,387 books in the school library. The librarian bought 445 more books to add to the library and put 126 books on the Give Away shelf near the office. How many books are in the library now? Show all your work.



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All in the Family

1 Fill in the missing number in each triangle. Then write the facts in the fact family.

<p>example</p> <div style="text-align: center;"> </div> $\begin{array}{r} 2 \times 8 = 16 \\ 8 \times 2 = 16 \\ 16 \div 8 = 2 \\ 16 \div 2 = 8 \end{array}$	<p>a</p> <div style="text-align: center;"> </div> $\begin{array}{r} ___ \times ___ = ___ \\ ___ \times ___ = ___ \\ ___ \div ___ = ___ \\ ___ \div ___ = ___ \end{array}$	<p>b</p> <div style="text-align: center;"> </div> $\begin{array}{r} ___ \times ___ = ___ \\ ___ \times ___ = ___ \\ ___ \div ___ = ___ \\ ___ \div ___ = ___ \end{array}$
<p>c</p> <div style="text-align: center;"> </div> $\begin{array}{r} ___ \times ___ = ___ \\ ___ \times ___ = ___ \\ ___ \div ___ = ___ \\ ___ \div ___ = ___ \end{array}$	<p>d</p> <div style="text-align: center;"> </div> $\begin{array}{r} ___ \times ___ = ___ \\ ___ \times ___ = ___ \\ ___ \div ___ = ___ \\ ___ \div ___ = ___ \end{array}$	<p>e</p> <div style="text-align: center;"> </div> $\begin{array}{r} ___ \times ___ = ___ \\ ___ \times ___ = ___ \\ ___ \div ___ = ___ \\ ___ \div ___ = ___ \end{array}$



CHALLENGE

2 Use multiplication and division to find the secret path through each maze. You can only move one space up, down, over, or diagonally each time. Write two equations to explain the path through the maze.

<p>example</p> <div style="text-align: center;"> </div> <p>$3 \times 8 = 24$ $24 \div 6 = 4$</p>	<p>a</p> <div style="text-align: center;"> </div>	<p>b</p> <div style="text-align: center;"> </div>
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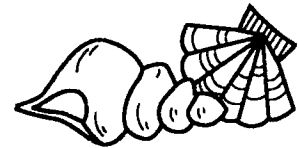
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Flowers, Shells & Cards

1 Lisa, Imani, and Carla, and were picking flowers for their aunt. If they each picked 8 flowers, how many flowers did they pick altogether? Show all your work.



2 Frank collected 18 beautiful shells for his 3 cousins. If he gave each cousin the same number of shells, how many shells did each cousin get? Show all your work.



CHALLENGE

3 Four friends were making cards to sell at the holiday sale. Each friend made 9 cards. They put all their cards together and then bundled them in groups of 6 cards to sell. How many bundles of 6 cards did they have to sell? Show all your work.



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Multiples & Multiplication Facts

1 When you count by a number, you are naming the multiples of that number. For example, if you skip count by 5's, you are naming the multiples of five: 5, 10, 15, 20, 25, and so on. In each sequence below, fill in the missing multiples.

ex 5, 10, 15, <u>20</u> , 25, 30, <u>35</u>	a 3, 6, _____, 12, 15, 18, _____, 24
b 6, _____, 18, _____, 30	c 9, 18, _____, 36, 45, _____, 63

2 Circle all the multiples of the number in each box.

ex 5	16	<u>20</u>	<u>15</u>	42	36	<u>45</u>	18	a 2	5	6	7	8	14	21	10
b 4	8	6	14	16	20	28	19	c 7	22	33	21	14	16	42	35
d 8	28	32	48	16	60	72	19	e 3	21	35	18	36	44	12	29

3 Fill in the missing numbers.

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

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \square \end{array}$$

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

$$\begin{array}{r} 2 \\ \times 6 \\ \hline \square \end{array}$$

$$\begin{array}{r} 7 \\ \times 8 \\ \hline \square \end{array}$$

$$\begin{array}{r} 3 \\ \times \square \\ \hline 24 \end{array}$$

$$\begin{array}{r} 7 \\ \times \square \\ \hline 14 \end{array}$$

$$\begin{array}{r} \square \\ \times 5 \\ \hline 30 \end{array}$$

$$\begin{array}{r} \square \\ \times 4 \\ \hline 36 \end{array}$$

$$\begin{array}{r} 3 \\ \times \square \\ \hline 12 \end{array}$$



CHALLENGE

$$\begin{array}{r} 6 \\ \times 2 \\ \hline \square \end{array}$$

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

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

$$\begin{array}{r} 6 \\ \times 16 \\ \hline \square \end{array}$$

$$\begin{array}{r} 6 \\ \times 32 \\ \hline \square \end{array}$$

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Tasty Treats

1 Joseph works at an ice cream stand. He sold 5 milkshakes per hour on Saturday. If he worked for 8 hours, how many milkshakes did he sell on Saturday? Show all your work.



2 On the last day of school, Mr. Jackson brought in some cookies for the 6 students in his reading group. He had a box with 15 cookies in it and, to be fair, he gave each student the same number of cookies. How many cookies did each student get? Show all your work.



CHALLENGE

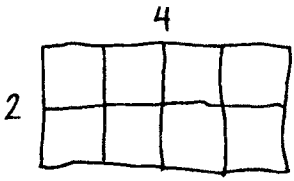
3 At her farm stand, Judy had 126 pounds of lettuce, 267 pounds of corn, and 155 pounds of tomatoes. She sold 83 pounds of lettuce, 182 pounds of corn, and 86 pounds of tomatoes. How many pounds of vegetables does she have left? Show all your work.

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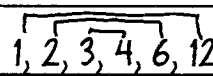
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Arrays & Factors

1 Draw and label a rectangular array to show two factors for each number. Do not use 1 as one of your factors. Then write the fact family that goes with your array.

<p>example 8</p> <div style="text-align: center;">  </div> $\begin{array}{r} 2 \times 4 = 8 \\ 4 \times 2 = 8 \\ 8 \div 4 = 2 \\ 8 \div 2 = 4 \end{array}$	<p>a 16</p> $\begin{array}{r} ____ \times ____ = ____ \\ ____ \times ____ = ____ \\ ____ \div ____ = ____ \\ ____ \div ____ = ____ \end{array}$	<p>b 18</p> $\begin{array}{r} ____ \times ____ = ____ \\ ____ \times ____ = ____ \\ ____ \div ____ = ____ \\ ____ \div ____ = ____ \end{array}$
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2 List all the factors of each number below.

ex 12		a 16	
b 17		c 24	
d 9		e 36	

3a Circle the prime number(s) in problem 2.

b Draw a square around the square number(s) in problem 2.



CHALLENGE

4 Fill in the missing digits in the problems below.

example

$$\begin{array}{r} \cancel{7} \boxed{3} 4 \\ - 69 \boxed{3} \\ \hline \boxed{1} 4 1 \end{array}$$

a

$$\begin{array}{r} 3 \boxed{} 6 \\ + \boxed{} 9 \boxed{} \\ \hline 7 0 4 \end{array}$$

b

$$\begin{array}{r} 6 2 3 \\ - \boxed{} 4 \boxed{} \\ \hline 1 \boxed{} 7 \end{array}$$

NAME _____

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The Big Race & the Walk-a-Thon

1 Hannah is running in big race that is 27 kilometers long. If she runs 9 kilometers per hour, how long will it take her to run the race? Show all your work.



2 Peter is in a walk-a-thon. He walks about 5 kilometers per hour. If he walks for 6 hours, about how far will he walk? Show all your work.



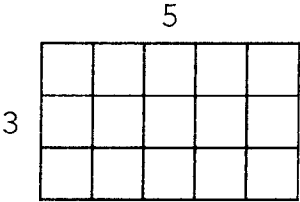
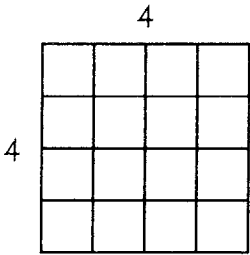
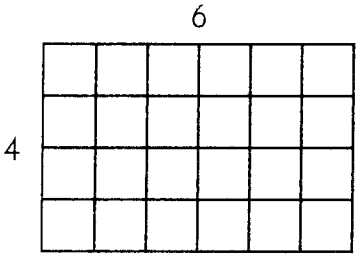
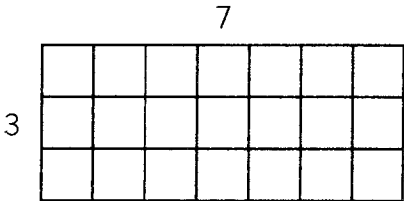
3 There are 32 students in Ms. Lopez's fourth grade class. If she made 2 equal groups of students, there would be 16 students in each group. What are the other ways she could divide the students into equal groups? Show all your work.

NAME _____

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Area & Perimeter

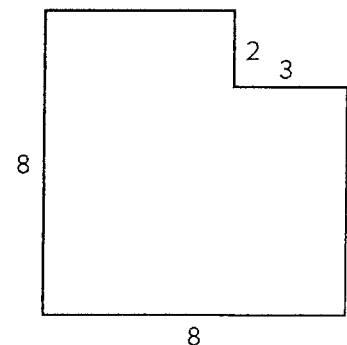
1 Find the area and perimeter of each rectangle. Area is the total amount of space covered by the rectangle. Perimeter is the distance around the rectangle.

<p>example</p>  <p>Perimeter $3 + 3 + 5 + 5 = 16$ units</p> <p>Area $3 \times 5 = 15$ square units</p>	<p>a</p>  <p>Perimeter _____</p> <p>Area _____</p>
<p>b</p>  <p>Perimeter _____</p> <p>Area _____</p>	<p>c</p>  <p>Perimeter _____</p> <p>Area _____</p>



CHALLENGE

2 Find the area and perimeter of this shape. Show all your work.



Perimeter _____

Area _____

NAME _____

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Area & Perimeter Story Problems

You can make sketches to help solve the problems below. Remember to include the units of measurement in your answers. Show all of your work.

1a The classroom rug is 9 feet long and 8 feet wide. What is the total area of the rug?

b What is the perimeter of the rug?

2a Chrissy is going to make a big painting on a piece of wood that is 4 feet wide and 7 feet long. What is the total area of the piece of wood?

b What is the perimeter of the piece of wood?

3 The school playground measures 465 feet by 285 feet. What is the perimeter of the playground?

NAME _____

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Place Value & Perimeter

1 Write each number below in standard form.

example twenty-three thousand, five hundred six 23,506

a nine thousand, two hundred forty-eight _____

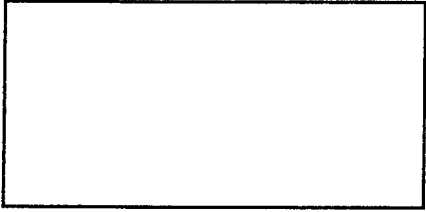


b seventeen thousand, six hundred thirty-three _____

c thirty-two thousand, fifty-eight _____

2 Identify the place value and value of the underlined digit in each number.

Number	Place Value	Value
ex 3 <u>6</u> ,874	thousands	six thousand
a 17, <u>6</u> 04		
b 8, <u>0</u> 97		
c <u>4</u> 1,000		

3 Find the perimeter of each rectangle below. Show your work.

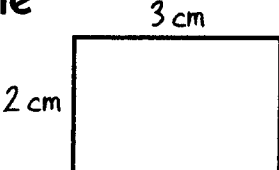
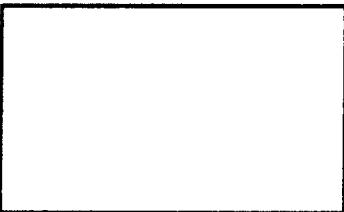

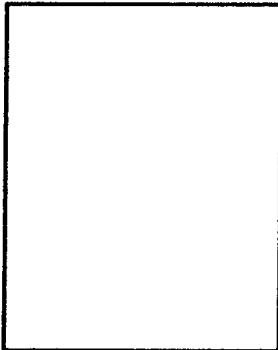


<p>example Perimeter <u>1,726"</u></p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p style="text-align: center;">583"</p>  <p style="margin-left: 10px;">280"</p> </div> <div> $\begin{array}{r} 1 \\ 280'' \\ + 280'' \\ \hline 560'' \end{array}$ $\begin{array}{r} 1 \\ 583'' \\ + 583'' \\ \hline 1,166'' \end{array}$ $\begin{array}{r} 1 \\ 1,166'' \\ + 560'' \\ \hline 1,726'' \end{array}$ </div> </div>	
<p>a Perimeter _____</p> <div style="margin-left: 40px;"> <p style="text-align: center;">126"</p>  <p style="margin-left: 10px;">234"</p> </div>	<p>b Perimeter _____</p> <div style="margin-left: 40px;"> <p style="text-align: center;">196"</p>  <p style="margin-left: 10px;">285"</p> </div>

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Measuring to Find Area & Perimeter

Use the centimeter side of a ruler to measure each rectangle below. Then find the area and perimeter of each rectangle. *Area* is the total amount of space covered by the rectangle, and *perimeter* is the total distance around the rectangle.

<p>example</p>  <p>Area <u>6 cm²</u> Perimeter <u>10 cm</u></p>	<p>1</p>  <p>Area _____ Perimeter _____</p>
<p>2</p>  <p>Area _____ Perimeter _____</p>	<p>3</p>  <p>Area _____ Perimeter _____</p> <p> 4</p>  <p>Area _____ Perimeter _____</p>

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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.

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

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

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

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

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

$$\begin{array}{r} 7 \\ \times \square \\ \hline 42 \end{array}$$

$$\begin{array}{r} 5 \\ \times \square \\ \hline 40 \end{array}$$

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

$$\begin{array}{r} \square \\ \times 4 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 3 \\ \times \square \\ \hline 18 \end{array}$$

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.

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

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

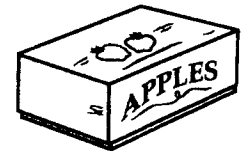
$40 \div \underline{\quad\quad} = 4$

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Multiplication & Division Story Problems

1 The cafeteria has 7 boxes with bags of dried apples in them. If there are 100 bags in each box, how many bags of dried apples are there in all? Show all your work.



2 Frank is riding his bike at 10 miles per hour. If he rides for 2 hours, how far will he go? Show all your work.

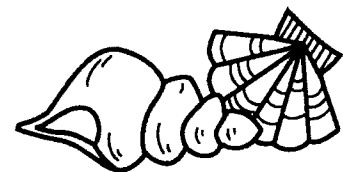


3 A factory makes 1000 footballs each day. How many footballs does the factory make each week if it is open Monday through Saturday? Show all your work.



CHALLENGE

4 Leanne is dividing 100 seashells into equal groups. She can make 2 equal groups of 50. What are the other equal groups she can make? Show all your work.



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Expanded Notation & Fact Families

1 Complete each equation by writing a number in standard form.

ex $17,508 = 10,000 + 7,000 + 500 + 8$	a _____ = $20,000 + 400 + 50 + 6$
b _____ = $30,000 + 2,000 + 100 + 10 + 2$	c _____ = $7,000 + 40 + 6$
d _____ = $90,000 + 6,000 + 30 + 5$	e _____ = $60,000 + 3,000 + 7$
f _____ = $10,000 + 3,000 + 800 + 50 + 5$	g _____ = $50,000 + 300 + 5$

2 Fill in the missing number in each equation.

ex $40,000 + 6,000 + \underline{50} + 8 = 46,058$	a $41,092 = 40,000 + \underline{\quad} + 90 + 2$
b $50,000 + 1,000 + \underline{\quad} + 50 + 4 = 51,354$	c $17,035 = 10,000 + \underline{\quad} + 30 + 5$
d $96,035 = 90,000 + 6,000 + \underline{\quad} + 5$	e $20,000 + \underline{\quad} + 50 + 6 = 20,456$
f $2,000 + 500 + \underline{\quad} + 7 = 2,567$	g $20,408 = 20,000 + \underline{\quad} + 8$

3 Fill in the missing information for each rectangle. Then write the multiplication and division fact family that goes with the rectangle.

<p>example</p> <div style="text-align: center;"> $\begin{array}{ c } \hline 4 \\ \hline \end{array}$ $\begin{array}{ c } \hline 2 \\ \hline \end{array} \begin{array}{ c } \hline 8 \\ \hline \end{array}$ </div> $\begin{array}{l} \underline{2} \times \underline{4} = \underline{8} \\ \underline{4} \times \underline{2} = \underline{8} \\ \underline{8} \div \underline{4} = \underline{2} \\ \underline{8} \div \underline{2} = \underline{4} \end{array}$	<p>a</p> <div style="text-align: center;"> $\begin{array}{ c } \hline \underline{\quad} \\ \hline \end{array}$ $3 \begin{array}{ c } \hline 21 \\ \hline \end{array}$ </div> $\begin{array}{l} \underline{\quad} \times \underline{\quad} = \underline{\quad} \\ \underline{\quad} \times \underline{\quad} = \underline{\quad} \\ \underline{\quad} \div \underline{\quad} = \underline{\quad} \\ \underline{\quad} \div \underline{\quad} = \underline{\quad} \end{array}$	<p>b</p> <div style="text-align: center;"> $\begin{array}{ c } \hline 9 \\ \hline \end{array}$ $\begin{array}{ c } \hline \underline{\quad} \\ \hline \end{array} \begin{array}{ c } \hline 54 \\ \hline \end{array}$ </div> $\begin{array}{l} \underline{\quad} \times \underline{\quad} = \underline{\quad} \\ \underline{\quad} \times \underline{\quad} = \underline{\quad} \\ \underline{\quad} \div \underline{\quad} = \underline{\quad} \\ \underline{\quad} \div \underline{\quad} = \underline{\quad} \end{array}$
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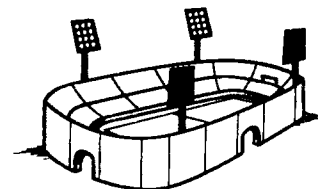
DATE _____

Money & Stadium Seats

1 Mr. Parker was buying presents for his sons. He spent one hundred thirty-six dollars on a remote controlled car for George. He spent fifty-nine dollars on a video game and twelve dollars on a book for Carl. How much more money did Mr. Parker spend on George's present than on Carl's? Show all your work.

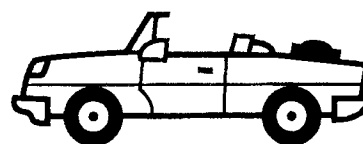


2 The stadium can hold twenty thousand people. If seventeen thousand, four hundred ninety-six people came to a game at the stadium, how many empty seats were there? Show all your work.



CHALLENGE

3 Jasmine wants to buy a car that costs six thousand, five hundred dollars. She has four thousand, six hundred sixty-five dollars in the bank. Her grandmother offered to give her five hundred dollars to help pay for the car. How much more money does Jasmine need to buy the car? Show your work.

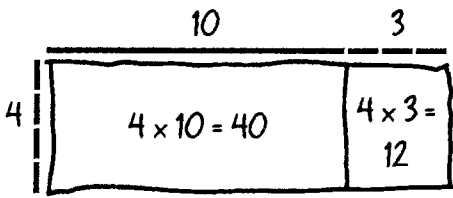





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Fill the Frames

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
<p>example</p> 	$40 + 12 = 52$	$4 \times 13 = 52$
<p>1</p> 		
<p>2</p> 		
<p>3</p> 		

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Multiplication Tables

1 Complete the multiplication tables below.

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

a	x	5	2	9	3	8	6	7	4
	3								

b	x	5	2	9	3	8	6	7	4
	4								

c	x	5	2	9	3	8	6	7	4
	8								

2 Solve the division problems below.

$40 \div 5 = \underline{\quad}$ $27 \div 3 = \underline{\quad}$ $16 \div 4 = \underline{\quad}$ $20 \div 5 = \underline{\quad}$

$64 \div 8 = \underline{\quad}$ $32 \div 4 = \underline{\quad}$ $18 \div 6 = \underline{\quad}$ $9 \div 3 = \underline{\quad}$



CHALLENGE

3 Write an even three-digit number with:

- an odd number in the tens place
- an odd number in the hundreds place that is less than the number in the tens place
- a number greater than 5 in the ones place

4 What is 2 times the number you wrote above?

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More Multiplication Tables

1 Fill in the missing numbers.

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

$$\begin{array}{r} 6 \\ \times 5 \\ \hline \square \end{array}$$

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

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

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

$$\begin{array}{r} 8 \\ \times \square \\ \hline 56 \end{array}$$

$$\begin{array}{r} 9 \\ \times \square \\ \hline 63 \end{array}$$

$$\begin{array}{r} \square \\ \times 5 \\ \hline 25 \end{array}$$

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

$$\begin{array}{r} 8 \\ \times \square \\ \hline 72 \end{array}$$

2 Complete the multiplication tables below.

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

a	x	5	2	9	3	8	6	7	4
	10								

b	x	5	2	9	3	8	6	7	4
	5								

c	x	5	2	9	3	8	6	7	4
	9								



CHALLENGE

3 Use what you know about multiplying by 10 to help solve these problems.

$$\begin{array}{r} 12 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \times 9 \\ \hline \end{array}$$

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Classroom Groups

1 Mrs. Larsen has 20 little erasers. She wants to divide the erasers evenly among the 6 students in her reading group. How many erasers will each student get? Show all your work.

2a The teacher wanted his class to work in groups of 4. After he divided them into groups, there were 6 groups of 4 and 1 group of 3. How many students were in the class? Show all your work.



CHALLENGE

b If the teacher wanted all the groups to be exactly the same size, how many students should be in each group? How many small groups would there be? Show all your work.

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Multiplying by 10, 100 & 1,000

1 Multiply by 10, 100, and 1,000. Some of the problems below are already done for you as examples.

$$\begin{array}{r} 10 \\ \times 3 \\ \hline 30 \end{array}$$

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

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

$$\begin{array}{r} 100 \\ \times 2 \\ \hline 200 \end{array}$$

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

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

$$\begin{array}{r} 1,000 \\ \times 2 \\ \hline 2,000 \end{array}$$

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

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

$$\begin{array}{r} 10 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1,000 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 100 \\ \times 3 \\ \hline \end{array}$$

2 Fill in the missing numbers.

$$\begin{array}{r} 10 \\ \times 8 \\ \hline \square \end{array}$$

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

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

$$\begin{array}{r} 100 \\ \times 5 \\ \hline \square \end{array}$$

$$\begin{array}{r} 1,000 \\ \times 3 \\ \hline \square \end{array}$$

$$\begin{array}{r} 1,000 \\ \times 5 \\ \hline \square \end{array}$$

$$\begin{array}{r} \square \\ \times 9 \\ \hline 9,000 \end{array}$$

$$\begin{array}{r} 100 \\ \times \square \\ \hline 600 \end{array}$$

$$\begin{array}{r} \square \\ \times 100 \\ \hline 500 \end{array}$$

$$\begin{array}{r} \square \\ \times 10 \\ \hline 80 \end{array}$$

$$\begin{array}{r} \square \\ \times \square \\ \hline 500 \end{array}$$

$$\begin{array}{r} \square \\ \times \square \\ \hline 70 \end{array}$$



CHALLENGE

$$\begin{array}{r} \square \\ \times 3 \\ \hline 3,000,000 \end{array}$$

$$\begin{array}{r} \square \\ \times 40 \\ \hline 400 \end{array}$$

$$\begin{array}{r} \square \\ \times 60 \\ \hline 6,000 \end{array}$$

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Multiplication & Division Puzzles

1 Fill in the missing numbers.

$$\begin{array}{r} 7 \\ \times \square \\ \hline 42 \end{array}$$

$$\begin{array}{r} \square \\ \times 6 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 9 \\ \times \square \\ \hline 81 \end{array}$$

$$\begin{array}{r} \square \\ \times 3 \\ \hline 24 \end{array}$$

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

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

$$\begin{array}{r} 9 \\ \times \square \\ \hline 45 \end{array}$$

$$\begin{array}{r} \square \\ \times 8 \\ \hline 32 \end{array}$$

$$\begin{array}{r} 6 \\ \times \square \\ \hline 36 \end{array}$$

$$\begin{array}{r} \square \\ \times 3 \\ \hline 27 \end{array}$$

2 Use multiplication and division to find the secret path through each maze. The starting and ending points are marked for you. You can only move one space up, down, over, or diagonally each time. Write four equations to explain the path through the maze.

<p>example</p> <p style="text-align: center;">start</p> <table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>3</td><td>4</td><td>12</td></tr> <tr><td>36</td><td>6</td><td>2</td></tr> <tr><td>9</td><td>4</td><td>6</td></tr> </table> <p style="text-align: center;">end</p> <p style="text-align: center;"> $3 \times 4 = 12$ $12 \div 2 = 6$ $6 \times 6 = 36$ $36 \div 9 = 4$ </p>	3	4	12	36	6	2	9	4	6	<p>a</p> <p style="text-align: center;">start</p> <table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>81</td><td>6</td><td>36</td></tr> <tr><td>6</td><td>9</td><td>4</td></tr> <tr><td>7</td><td>42</td><td>9</td></tr> </table> <p style="text-align: center;">end</p>	81	6	36	6	9	4	7	42	9	<p>b</p> <p style="text-align: center;">start end</p> <table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>1</td><td>3</td><td>2</td></tr> <tr><td>6</td><td>2</td><td>9</td></tr> <tr><td>3</td><td>18</td><td>2</td></tr> </table>	1	3	2	6	2	9	3	18	2
3	4	12																											
36	6	2																											
9	4	6																											
81	6	36																											
6	9	4																											
7	42	9																											
1	3	2																											
6	2	9																											
3	18	2																											



CHALLENGE

3 Complete the division table below.

÷	600	240	120	180	540	5,400	1,800	1,200
60								

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Using the Standard Multiplication Algorithm

1 Use the standard algorithm to solve each multiplication problem.

ex $\begin{array}{r} 2 \\ 34 \\ \times 7 \\ \hline 238 \end{array}$	a $\begin{array}{r} 43 \\ \times 6 \\ \hline \end{array}$	b $\begin{array}{r} 28 \\ \times 4 \\ \hline \end{array}$	c $\begin{array}{r} 59 \\ \times 4 \\ \hline \end{array}$
d $\begin{array}{r} 37 \\ \times 3 \\ \hline \end{array}$	e $\begin{array}{r} 84 \\ \times 3 \\ \hline \end{array}$	f $\begin{array}{r} 33 \\ \times 8 \\ \hline \end{array}$	g $\begin{array}{r} 68 \\ \times 5 \\ \hline \end{array}$

2 Solve the problems below using the standard algorithm. Show your work.

ex $\begin{array}{r} 11 \\ 164 \\ \times 3 \\ \hline 492 \end{array}$	a $\begin{array}{r} 137 \\ \times 3 \\ \hline \end{array}$	b $\begin{array}{r} 382 \\ \times 7 \\ \hline \end{array}$	c $\begin{array}{r} 485 \\ \times 6 \\ \hline \end{array}$
d $\begin{array}{r} 146 \\ \times 4 \\ \hline \end{array}$	e $\begin{array}{r} 232 \\ \times 6 \\ \hline \end{array}$	f $\begin{array}{r} 143 \\ \times 5 \\ \hline \end{array}$	g $\begin{array}{r} 406 \\ \times 5 \\ \hline \end{array}$



CHALLENGE

h $\begin{array}{r} 1,243 \\ \times 5 \\ \hline \end{array}$	i $\begin{array}{r} 3,531 \\ \times 4 \\ \hline \end{array}$	j $\begin{array}{r} 4,325 \\ \times 4 \\ \hline \end{array}$	k $\begin{array}{r} 3,478 \\ \times 9 \\ \hline \end{array}$
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Two Different Multiplication Methods

1 Solve each problem below. Use the standard algorithm at least two times. Use the partial products method at least two times.

<p>ex a standard algorithm</p> $\begin{array}{r} 12 \\ 135 \\ \times 4 \\ \hline 540 \end{array}$	<p>ex b partial product</p> $\begin{array}{r} 135 \\ \times 4 \\ \hline 4 \times 100 = 400 \\ 4 \times 30 = 120 \\ 4 \times 5 = + 20 \\ \hline 540 \end{array}$	<p>a</p> $\begin{array}{r} 28 \\ \times 8 \\ \hline \end{array}$	<p>b</p> $\begin{array}{r} 47 \\ \times 5 \\ \hline \end{array}$
<p>c</p> $\begin{array}{r} 56 \\ \times 3 \\ \hline \end{array}$	<p>d</p> $\begin{array}{r} 321 \\ \times 7 \\ \hline \end{array}$	<p>e</p> $\begin{array}{r} 482 \\ \times 6 \\ \hline \end{array}$	<p>f</p> $\begin{array}{r} 259 \\ \times 3 \\ \hline \end{array}$

2 Ramon bought 8 big cases of breakfast cereal. Each case held 12 boxes of cereal. Each box of cereal held 18 oz. of cereal. How many boxes of breakfast cereal did Ramon buy?

a Restate the question in your own words:

b Underline the information in the problem you do need to solve the problem.

c Cross out the information in the problem you don't need to solve the problem.

d Solve the problem. Show all your work.

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Multiplication Story Problems

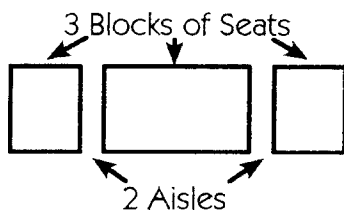
1 At the beginning of the school year, there were 28 desks in each classroom. There were 26 classrooms. How many desks were in the school altogether? Show all your work.

2 Jerome does 125 sit-ups every day. How many sit-ups will he do in 2 weeks? Show all your work.



CHALLENGE

3 The movie theater in our town has 2 aisles and 3 blocks of seats. Two blocks of seats each have 24 rows of 7 seats. The middle block of seats has 24 rows of 14 seats. How many seats are in the theater altogether? Show all your work.



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Using the Standard Algorithm & Partial Products to Multiply

1 Solve these multiplication problems.

$$\begin{array}{r} 30 \\ \times 30 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ \times 30 \\ \hline \end{array}$$

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

$$\begin{array}{r} 200 \\ \times 20 \\ \hline \end{array}$$

$$\begin{array}{r} 200 \\ \times 30 \\ \hline \end{array}$$

$$\begin{array}{r} 200 \\ \times 40 \\ \hline \end{array}$$

2 Solve these multiplication problems. Use the standard algorithm to solve two of them. Use partial products to solve the other two. Hint: Use the answers above to make sure your answers are reasonable.

<p>ex a Standard Algorithm</p> $\begin{array}{r} 21 \\ \cancel{52} \\ 184 \\ \times 36 \\ \hline 1,104 \\ + 5,520 \\ \hline 6,624 \end{array}$	<p>ex b Partial Products</p> $\begin{array}{r} 63 \\ \cancel{18} \\ \times 21 \\ \hline 20 \times 60 = 1,200 \\ 20 \times 3 = 60 \\ 1 \times 60 = 60 \\ 1 \times 3 = + 3 \\ \hline 1,323 \end{array}$
<p>a</p> $\begin{array}{r} 36 \\ \times 29 \\ \hline \end{array}$	<p>b</p> $\begin{array}{r} 43 \\ \times 38 \\ \hline \end{array}$
<p>c</p> $\begin{array}{r} 186 \\ \times 22 \\ \hline \end{array}$	<p>d</p> $\begin{array}{r} 207 \\ \times 35 \\ \hline \end{array}$

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Using the Standard Algorithm to Multiply Large Numbers

1 Solve these multiplication problems.

$$\begin{array}{r} 80 \\ \times 60 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ \times 70 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ \times 80 \\ \hline \end{array}$$

$$\begin{array}{r} 600 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 600 \\ \times 20 \\ \hline \end{array}$$

$$\begin{array}{r} 600 \\ \times 30 \\ \hline \end{array}$$

2 Solve these multiplication problems using the *standard algorithm*. Use the answers above to make sure your answers are reasonable.

<p>example</p> $\begin{array}{r} 21 \\ \cancel{52} \\ 184 \\ \times 36 \\ \hline 1,104 \\ + 5,520 \\ \hline 6,624 \end{array}$	<p>a</p> $\begin{array}{r} 78 \\ \times 76 \\ \hline \end{array}$
<p>b</p> $\begin{array}{r} 80 \\ \times 72 \\ \hline \end{array}$	<p>c</p> $\begin{array}{r} 78 \\ \times 59 \\ \hline \end{array}$
<p>d</p> $\begin{array}{r} 587 \\ \times 13 \\ \hline \end{array}$	<p>e</p> $\begin{array}{r} 602 \\ \times 26 \\ \hline \end{array}$

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Multiplication & Division Practice

1 Solve these multiplication problems using the standard algorithm.

<p>example</p> $\begin{array}{r} 21 \\ \cancel{52} \\ 184 \\ \times 36 \\ \hline 1,104 \\ +5,520 \\ \hline 6,624 \end{array}$	<p>a</p> $\begin{array}{r} 68 \\ \times 70 \\ \hline \end{array}$	<p>b</p> $\begin{array}{r} 507 \\ \times 23 \\ \hline \end{array}$	<p>c</p> $\begin{array}{r} 289 \\ \times 32 \\ \hline \end{array}$
<p>d</p> $\begin{array}{r} 356 \\ \times 32 \\ \hline \end{array}$	<p>e</p> $\begin{array}{r} 209 \\ \times 83 \\ \hline \end{array}$	<p>f</p> $\begin{array}{r} 447 \\ \times 25 \\ \hline \end{array}$	<p>g</p> $\begin{array}{r} 387 \\ \times 67 \\ \hline \end{array}$

2 Complete the following division facts.

$56 \div 7 = \underline{\quad}$

$81 \div 9 = \underline{\quad}$

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

$42 \div 6 = \underline{\quad}$

$64 \div 8 = \underline{\quad}$

$35 \div 5 = \underline{\quad}$

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

$21 \div 7 = \underline{\quad}$

$18 \div 3 = \underline{\quad}$



CHALLENGE

3 Solve the following problems mentally. Use the facts above to help if you want to.

$81 \div 3 = \underline{\quad}$

$42 \div 3 = \underline{\quad}$

$64 \div 4 = \underline{\quad}$

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Multi-Digit Multiplication Practice

1 Solve these multiplication problems.

$$\begin{array}{r} 70 \\ \times 30 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ \times 40 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ \times 50 \\ \hline \end{array}$$

$$\begin{array}{r} 700 \\ \times 30 \\ \hline \end{array}$$

$$\begin{array}{r} 700 \\ \times 40 \\ \hline \end{array}$$

2 Solve these multiplication problems using the standard algorithm. Use the answers above to make sure your answers are reasonable.

<p>example</p> $\begin{array}{r} 21 \\ \cancel{52} \\ 184 \\ \times 36 \\ \hline 1,104 \\ +5,520 \\ \hline 6,624 \end{array}$	<p>a</p> $\begin{array}{r} 73 \\ \times 52 \\ \hline \end{array}$
<p>b</p> $\begin{array}{r} 68 \\ \times 48 \\ \hline \end{array}$	<p>c</p> $\begin{array}{r} 67 \\ \times 36 \\ \hline \end{array}$
<p>d</p> $\begin{array}{r} 703 \\ \times 28 \\ \hline \end{array}$	<p>e</p> $\begin{array}{r} 689 \\ \times 40 \\ \hline \end{array}$