HM4

Name _____ Date _____

Mental Math: Multiply Multiples of 10 and 100

You can use basic facts and patterns to multiply mentally.

Find 30 × 600.

You can use basic facts and patterns with zeros to multiply.

Use the basic fact 3 × 6 = 18.

3 × 6 = 18

3 × 60 = 180

30 × 60 = 1,800

30 × 600 = 18,000

Solution: 30 × 600 = 18,000

Use basic facts and patterns to find each product.

1. 20 × 4 _____

   20 × 40 _____

   20 × 400 _____

2. 60 × 7 _____

   60 × 70 _____

   60 × 700 _____

3. 30 × 3 _____

   30 × 30 _____

   30 × 300 _____

4. 70 × 8 _____

   70 × 80 _____

   70 × 800 _____

Multiply.

5. 90 × 50 _____
6. 40 × 80 _____
7. 600 × 90 _____
8. 900 × 80 _____
9. 200 × 60 _____
10. 60 × 300 _____
11. 500 × 30 _____
12. 80 × 30 _____
13. 600 × 70 _____
14. 80 × 10 _____
15. 50 × 40 _____
16. 70 × 200 _____
17. 80 × 800 _____
18. 90 × 800 _____
19. 700 × 90 _____
20. 30 × 40 _____

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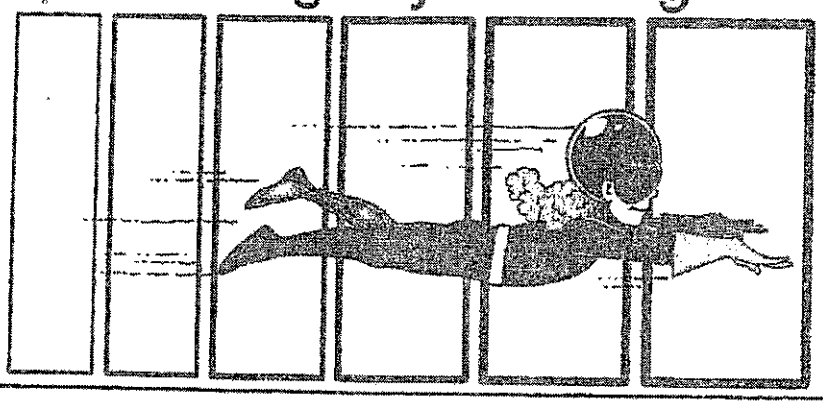
Two-Digit by One-Digit



Here's how to multiply a two-digit number by a one-digit number with regrouping (carrying):

1. ①13
   X 4
   2 ← Write the 2 in the ones place.

   Multiply the ones, 3 X 4 = 12
   Write the 1 ten so you remember it.

2. ①13
   X 4
   52

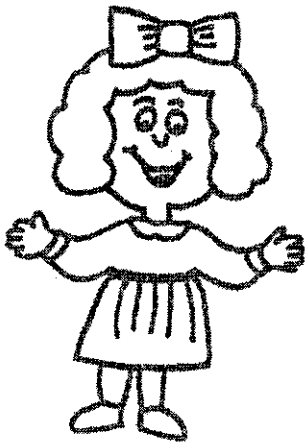
   Multiply the tens by 4
   1 ten X 4 = 4 tens
   Add the 1 ten = 5 tens

13 X 4 52	12 X 8	14 X 7	19 X 5
18 X 9	16 X 6	14 X 3	17 X 9
24 X 2	23 X 3	24 X 2	30 X 5
42 X 4	31 X 7	24 X 4	62 X 2

Name_____

Skill: Multiplying by one-digit numbers– regrouping

More Regrouping!



Try these! Don't forget to regroup!

Number of problems 33

Problems correct ____

1. 54 x 7	2. 87 x 2	3. 55 x 3			
4. 58 x 6	5. 28 x 5	6. 43 x 9	7. 64 x 7	8. 46 x 7	9. 33 x 8
10. 82 x 6	11. 66 x 7	12. 86 x 5	13. 36 x 6	14. 49 x 5	15. 87 x 3
16. 32 x 7	17. 83 x 5	18. 74 x 7	19. 42 x 3	20. 36 x 2	21. 47 x 4
22. 27 x 6	23. 77 x 8	24. 69 x 2	25. 52 x 4	26. 38 x 9	27. 78 x 2
28. 45 x 2	29. 57 x 8	30. 28 x 4	31. 63 x 6	32. 44 x 3	33. 65 x 5

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Name: _____

Multiplication: One-Digit Number x Two-Digit Number

Multiplication is a short way to find the sum of adding the same number a certain amount of times, such as 7 x 4 = 28 instead of 7 + 7 + 7 + 7 = 28.

Directions: Study the example. Follow the steps to multiplying by regrouping tens.

Example:

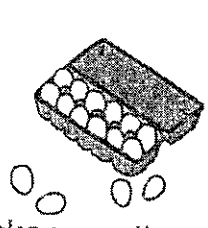
Step 1. Multiply ones. Regroup.

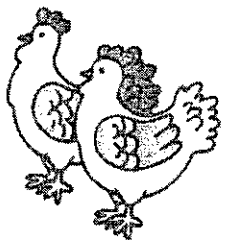
$$\begin{array}{r} {\scriptstyle 2} \\ 54 \\ \times 7 \\ \hline 8 \end{array}$$

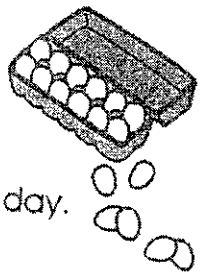
Step 2. Multiply Tens. Add 2 tens.

$$\begin{array}{r} {\scriptstyle 2} \\ 54 \\ \times 7 \\ \hline 378 \end{array}$$

27 x3	63 x4	52 x5	91 x9	45 x7
75 x2	64 x5	76 x3	93 x6	87 x4
66 x7	38 x2	47 x8	64 x9	51 x8
99 x3	13 x7	32 x4	25 x8	15 x7







The chickens on the Smith farm produce 48 dozen eggs each day. How many dozen eggs do they produce in 7 days?

_____

Name _____ Date _____

Multiply Greater Numbers

You can multiply greater numbers.

Find 2 × 2,476.

Step 1 Multiply the ones.
Regroup the 12 ones as 1 ten and 2 ones.

$$\begin{array}{r} {\scriptstyle 1} \\ 2{,}476 \\ \times \quad 2 \\ \hline 2 \end{array}$$

Step 2 Multiply the tens.
Add the 1 ten to the 14 tens.
1 + 14 = 15 tens
Regroup the 15 tens as 1 hundred and 5 tens.

$$\begin{array}{r} {\scriptstyle 11} \\ 2{,}476 \\ \times \quad 2 \\ \hline 52 \end{array}$$

Step 3 Multiply the hundreds.
2 × 4 = 8 hundreds.
Add the 1 regrouped hundred to the hundreds.
1 + 8 = 9 hundreds

$$\begin{array}{r} {\scriptstyle 11} \\ 2{,}476 \\ \times \quad 2 \\ \hline 952 \end{array}$$

Step 4 Multiply the thousands.
2 × 2 = 4 thousands

$$\begin{array}{r} {\scriptstyle 11} \\ 2{,}476 \\ \times \quad 2 \\ \hline 4{,}952 \end{array}$$

Solution: 2 × 2,476 = 4,952

Find each product. Estimate to check.

1. $\begin{array}{r} 1{,}823 \\ \times \quad 4 \\ \hline \end{array}$
2. $\begin{array}{r} 2{,}358 \\ \times \quad 2 \\ \hline \end{array}$
3. $\begin{array}{r} 2{,}919 \\ \times \quad 6 \\ \hline \end{array}$
4. $\begin{array}{r} 3{,}178 \\ \times \quad 5 \\ \hline \end{array}$
5. $\begin{array}{r} 4{,}125 \\ \times \quad 3 \\ \hline \end{array}$
6. $\begin{array}{r} 3{,}217 \\ \times \quad 4 \\ \hline \end{array}$
7. $\begin{array}{r} 4{,}921 \\ \times \quad 3 \\ \hline \end{array}$
8. $\begin{array}{r} 8{,}217 \\ \times \quad 2 \\ \hline \end{array}$
9. $\begin{array}{r} 1{,}203 \\ \times \quad 3 \\ \hline \end{array}$
10. $\begin{array}{r} 8{,}611 \\ \times \quad 4 \\ \hline \end{array}$

11. 1,389 × 2 = _____
12. 3,871 × 2 = _____
13. 5,367 × 8 = _____
14. 6,118 × 6 = _____
15. 8,127 × 7 = _____
16. 2,929 × 8 = _____

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Name _____ Date _____

Multiply with Zeros

Find 4 × 509.

Step 1 Multiply the ones. Regroup if you can.	$\overset{3}{509} \times 4 = 6$	4 × 9 = 36 ones 36 ones = 3 tens + 6 ones
Step 2 Multiply the tens. 4 × 0 tens is 0, but there are 3 regrouped tens to be added.	$\overset{3}{509} \times 4 = 36$	4 × 0 tens = 0 tens. 0 tens + 3 tens = 3 tens.
Step 3 Multiply the hundreds.	$\overset{3}{509} \times 4 = 2{,}036$	4 × 5 = 20 hundreds 509 × 4 = 2,036

Find the product. Estimate to check.

1. 204 × 5

2. 503 × 2

3. 4,002 × 8

4. 2,007 × 6

5. 4,096 × 8

6. 8,047 × 5

7. 7 × 1,405 _____

8. 82,405 × 8 _____

9. 18,505 × 3 _____

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Name _____ Date _____

Tic-tac-toe

This Tic-tac-toe game gives you all the answers you need to win. All you have to do is find the row, column, or diagonal that is the winner.

Here's how: Look at the problems on the game board. To find the answers, round each 3-digit number to the nearest ten and each 4-digit number to the nearest hundred, and then multiply. You don't need to round 1-digit numbers. See if your answer matches one in the answer box. If it does, write the answer on the line under the problem. When you find a row, column, or diagonal of answers, draw a circle around the problems.

504 x 5 = _____	385 x 3 = _____	714 x 8 = _____
689 x 2 = _____	209 x 6 = _____	1,742 x 2 = _____
1,119 x 7 = _____	2,894 x 4 = _____	3,046 x 5 = _____

Answer Box

5,680
116,000
3,500
1,260
2,400
1,390
7,710
1,180
7,700

Congratulations! You've won the game.

What is the crossing guard's favorite game? Tic-Tac-Toe. He likes to find his way across.

Multiplication SQUARES

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4	10	24	3	12	4	25	2	15	20
20	30	36	8	15	5	18	30	12	9
18	5	1	24	20	25	6	1	24	8
12	16	25	6	36	3	36	5	4	24
2	9	24	18	12	8	10	4	15	12
5	15	4	30	6	24	12	2	18	3
8	20	36	5	15	4	30	1	3	12
24	6	20	2	18	25	15	6	20	10
3	30	10	30	15	9	6	5	18	4
12	5	16	24	8	3	30	12	10	16

Who will capture the most squares?

Looking to practice multiplication facts through 12? Check out our full 'Squares' version! http://bit.ly/MultSquares

More Addition and Subtraction

Place + and - signs between the digits so that both sides of each equation are equal.

1.	9	8	6	3	5	1	=	6
2.	5	3	4	4	2	9	=	17
3.	5	3	2	4	1	5	=	2
4.	3	2	1	4	1	3	=	6
5.	5	1	1	3	4	8	=	18
6.	4	9	3	7	3	1	=	19
7.	2	1	8	9	3	5	=	20
8.	8	7	1	4	4	6	=	14
9.	7	6	2	9	9	3	=	0
10.	3	5	3	9	6	5	=	15

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Addition and Subtraction

Place + and – signs between the digits so that both sides of each equation are equal.

1. 6 4 1 2 6 2 = 15

2. 9 1 3 1 4 1 = 5

3. 9 3 4 1 2 3 = 14

4. 5 1 1 3 4 6 = 18

5. 9 8 6 3 5 3 = 8

6. 2 1 8 9 3 5 = 20

7. 5 3 2 4 1 5 = 12

8. 4 9 3 7 3 1 = 11

9. 7 6 2 8 7 1 = 3

10. 9 9 9 2 2 8 = 1

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Strike It Rich!

Whose picture is on the $100,000 bill?

To discover the answer, find the difference in each problem below. Decode the name by matching the answer to its letter. Write the letter in the box below the difference.

9371	3313	4530	6000	6230	3917	6792
−4528	−1834	−3051	−3781	−1357	−2438	−1949

7927	7203	5361	4079	7455	5386
−3084	−3427	−2805	−2834	−5976	−2174

1479 **O**	3776 **I**	4843 **W**	2219 **D**
4873 **R**	2556 **L**	3212 **N**	1245 **S**

The $100,000 bill is the highest-value bill ever printed by the United States. It was used only by government banks. The bill is no longer issued. The $100 bill is the highest value U.S. bill in circulation today.

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Money Maze

Find your way through the money maze. Mark the path of correct money amounts. You may go ↕ ↔ ↗↙ or ↘↖.

$ End	7 pennies + 7 dimes = 70 cents	Start $	4 nickels + 3 dimes = 60 cents
3 pennies + 2 dimes +2 quarters = 73 cents	4 nickels + 2 dimes + 3 quarters = $1.25	5 nickels + 1 dime + 1 quarter = 55 cents	6 pennies + 6 dimes + 1 quarter = 91 cents
8 pennies + 5 dimes = 58 cents	2 pennies + 3 quarters = 76 cents	8 nickels + 3 quarters = $1.15	11 pennies + 7 dimes = 78 cents
4 quarters + 2 dimes = $1.25	2 pennies + 6 nickels + 7 dimes = $1.02	1 penny + 1 dime + 2 quarters = 61 cents	2 nickels + 3 dimes = 45 cents
8 dimes = 40 cents	17 nickels = 85 cents	7 pennies + 5 nickels = 33 cents	10 quarters = $2.50
2 pennies + 5 nickels + 3 quarters = 87 cents	11 pennies + 4 nickels = 41 cents	7 nickels + 7 dimes = $1.05	3 nickels + 1 dime + 1 quarter = 45 cents
3 pennies + 3 dimes = 35 cents	4 pennies + 7 nickels = 39 cents	3 nickels + 3 dimes + 3 quarters = $1.20	4 pennies + 3 nickels = 19 cents

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