Menu Math

THE HAMBURGER HUT (X,÷)

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MENU MATH

<u>TO THE TEACHER</u>

MENU MATH books are designed to build basic math skills through the use of a real-life, contemporary situation—looking at a menu and figuring costs involved when eating in a restaurant. By answering questions which have realistic circumstances, students are often able to better understand the practical reasons for learning math.

This approach has proven successful in helping motivate the sometimes–reluctant learner. Most students show a natural interest in materials featuring topics familiar to them as a part of their everyday lives.

Skill pages in this book include clearly stated objectives and are sequential. Post-tests appear at the end of each section. In most cases, examples are provided for the students. However, so that a page may be used as a post-test, examples have been left off some pages.

<u>SUGGESTIONS</u>

- Duplicate pages.

- Set up MENU MATH Learning Centers.

- Have students create their own story problems and checks.

- Write additional story problems and checks using your students' names.

- Make a booklet of selected skill pages for individual students. Have the student design a cover for the booklet—draw a hamburger, cola, etc.

- Cut out the restaurant checks. They may be used along with play money to help students learn how to make change.

- Allow students to use calculators to check answers.
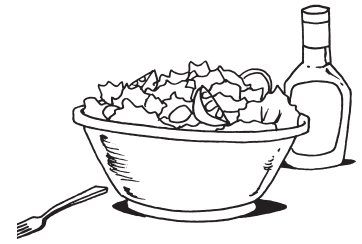
- Purchase additional copies of the menus.

KNOWLEDGE OF MATH AND MONEY IS IMPORTANT TO SUCCESS AND INDEPENDENCE. WE HOPE YOUR STUDENTS WILL ENJOY AND LEARN FROM THE REAL-LIFE EXPERIENCES PROVIDED IN THIS BOOK.

Name _____

Multiplying 2-digit numbers by 1 digit (2, 3, 4, 5's)	Example:	$\begin{array}{r} \overset{1}{\$\ .33} \\ \times\ \underline{\quad 4} \\ \$1.32 \end{array}$

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1. $\begin{array}{r} \$\ .13 \\ \times\ \underline{\quad 3} \end{array}$ $\begin{array}{r} \$\ .22 \\ \times\ \underline{\quad 4} \end{array}$ $\begin{array}{r} \$\ .31 \\ \times\ \underline{\quad 3} \end{array}$ $\begin{array}{r} \$\ .42 \\ \times\ \underline{\quad 2} \end{array}$

2. $\begin{array}{r} \$\ .64 \\ \times\ \underline{\quad 2} \end{array}$ $\begin{array}{r} \$\ .43 \\ \times\ \underline{\quad 5} \end{array}$ $\begin{array}{r} \$\ .21 \\ \times\ \underline{\quad 4} \end{array}$ $\begin{array}{r} \$\ .16 \\ \times\ \underline{\quad 5} \end{array}$

3. $\begin{array}{r} \$\ .18 \\ \times\ \underline{\quad 3} \end{array}$ $\begin{array}{r} \$\ .43 \\ \times\ \underline{\quad 4} \end{array}$ $\begin{array}{r} \$\ .33 \\ \times\ \underline{\quad 3} \end{array}$ $\begin{array}{r} \$\ .26 \\ \times\ \underline{\quad 2} \end{array}$

4. $\begin{array}{r} \$\ .19 \\ \times\ \underline{\quad 5} \end{array}$ $\begin{array}{r} \$\ .24 \\ \times\ \underline{\quad 4} \end{array}$ $\begin{array}{r} \$\ .42 \\ \times\ \underline{\quad 3} \end{array}$ $\begin{array}{r} \$\ .35 \\ \times\ \underline{\quad 4} \end{array}$

5. $\begin{array}{r} \$\ .37 \\ \times\ \underline{\quad 3} \end{array}$ $\begin{array}{r} \$\ .29 \\ \times\ \underline{\quad 4} \end{array}$ $\begin{array}{r} \$\ .12 \\ \times\ \underline{\quad 5} \end{array}$ $\begin{array}{r} \$\ .46 \\ \times\ \underline{\quad 4} \end{array}$

6. $\begin{array}{r} \$\ .28 \\ \times\ \underline{\quad 5} \end{array}$ $\begin{array}{r} \$\ .36 \\ \times\ \underline{\quad 4} \end{array}$ $\begin{array}{r} \$\ .16 \\ \times\ \underline{\quad 3} \end{array}$ $\begin{array}{r} \$\ .61 \\ \times\ \underline{\quad 5} \end{array}$

Name _____

Multiplying 4-digit
numbers by 1 digit
(8, 9's)

1. $ 35.42 $ 36.58 $ 74.35 $ 67.15
    x____9   x____8   x____9   x____8

2. $ 38.61 $ 43.46 $ 76.23 $ 66.28
    x____8   x____9   x____9   x____8

3. $ 35.22 $ 31.95 $ 73.47 $ 69.27
    x____8   x____9   x____9   x____8

4. $ 38.43 $ 58.29 $ 75.62 $ 64.86
    x____8   x____9   x____8   x____9

5. $ 47.32 $ 62.95 $ 84.47 $ 92.58
    x____8   x____9   x____8   x____9

6. $ 28.73 $ 16.78 $ 87.77 $ 95.69
    x____8   x____9   x____8   x____9

Name _____

Multiplying 2-digit numbers by 2 digits (3-digit answer).	Example:

Example:

$$\begin{array}{r} \overset{2}{} \\ \$\ .28 \\ \times\ \underline{13} \\ 84 \\ \underline{2\ 8} \\ \$3.64 \end{array}$$

---

1. $ .47 $ .29 $ .28 $ .33
   x 17   x 13   x 15   x 25

2. $ .27 $ .26 $ .36 $ .38
   x 24   x 18   x 21   x 26

3. $ .24 $ .13 $ .33 $ .18
   x 21   x 25   x 15   x 24

4. $ .56 $ .41 $ .36 $ .52
   x 12   x 14   x 11   x 16

5. $ .26 $ .27 $ .65 $ .56
   x 15   x 18   x 12   x 13

Finding Sales Tax

Some states charge sales tax. When you buy food in a restaurant, you must pay sales tax. The amount of money you pay for sales tax depends on how much the food costs. Look carefully at the example below.

HAMBURGER HUT
GUEST CHECK

2	Hut Burgers	$8.50
2	Hot Teas	2.30
	SUBTOTAL	10.80
	(7% sales) *TAX*	.76
Thank You!	**TOTAL**	11.56

Directions:
Follow the steps below.

1. Add the two items to find the **subtotal**.

2. Write in the **tax** from the Tax Table.

3. Add the **subtotal** and the **tax** to find the **total**.

You will be practicing with a **7% Sales Tax Table**. Find out from your teacher what tax rate your state charges.

The **subtotal** on the sample check above is **$10.80.**
$10.80 is between $10.79 and $10.92 on the Tax Table. Tax owed is $.76.

7% SALES TAX TABLE

Amount of Sale	Tax	Amount of Sale	Tax
8.50 - 8.64	.60	10.22 - 10.35	.72
8.65 - 8.78	.61	10.36 - 10.49	.73
8.79 - 8.92	.62	10.50 - 10.64	.74
8.93 - 9.07	.63	10.65 - 10.78	.75
9.08 - 9.21	.64	**10.79 - 10.92**	**.76**
9.22 - 9.35	.65	10.93 - 11.07	.77
9.36 - 9.49	.66	11.08 - 11.21	.78
9.50 - 964	.67	11.22 - 11.35	.79
9.65 - 9.78	.68	11.36 - 11.49	.80
9.79 - 9.92	.69	11.50 - 11.64	.81
9.93 - 10.07	.70	11.65 - 11.78	.82
10.08 - 10.21	.71	11.79 - 11.92	.83

Name _____

Use the tax table on page 24 to
find the sales tax on the following
amounts. Show totals.
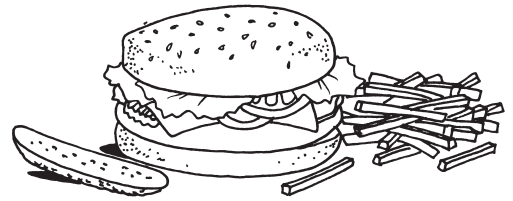
	Amount	Sales Tax	Total
1.	$ 23.15	_____	_____
2.	$ 25.50	_____	_____
3.	$ 26.99	_____	_____
4.	$ 28.32	_____	_____
5.	$ 29.75	_____	_____
6.	$ 31.25	_____	_____
7.	$ 32.10	_____	_____
8.	$ 34.88	_____	_____
9.	$ 35.00	_____	_____
10.	$ 36.46	_____	_____
11.	$ 37.95	_____	_____
12.	$ 38.13	_____	_____
13.	$ 39.50	_____	_____
14.	$ 40.08	_____	_____
15.	$ 40.85	_____	_____

Proper placement of the decimal point and dollar sign
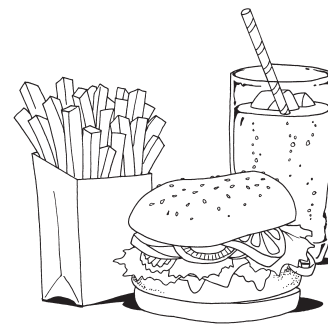
When adding, subtracting, multiplying, and dividing money, always use a dollar sign ($) and a decimal point (.) in your answer.

When adding and subtracting money, line up the decimal points.

Examples:

$$\begin{array}{r} \$\,26.25 \\ +\ \ 6.32 \\ \hline \$\,32.57 \end{array} \qquad \begin{array}{r} \$\,36.83 \\ -\ \ 2.61 \\ \hline \$\,34.22 \end{array}$$

⬆   Line up the decimal point.   ⬆

When multiplying money, put the same number of decimal places in the answer as there are in the problem.

Example:

$$\begin{array}{r} \$\quad 43.55 \\ \times \quad\ 32 \\ \hline 87\,10 \\ 1\,306\,50 \\ \hline \$\,1,393.60 \end{array}$$

⬅ 2 decimal places in the problem

⬅ There must be 2 decimal places in the answer

When dividing money by a whole number, begin by placing the decimal point in the answer.

⬇ **Example:**

$$3\overline{)\$24.03} \qquad$$ Line up the decimal point

1. Add	2. Subtract
$2.07 + $3.83 + $1.36 + $.57 =	$4.10 - $2.98 = $30.06 - $2.18 =
3. Multiply	**4.** Divide
$4.85 x 64 = $13.14 x 7 =	$6.36 ÷ 6 = $24.12 ÷ 3 =

Name _____

**Multiplying to find the cost when
buying more than one of the same item**
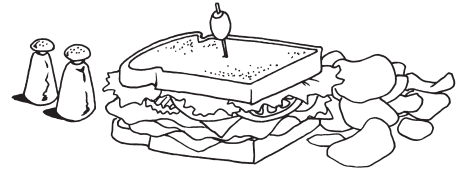
1. Use the menu to find the item price.
2. Multiply to find the total price.

$$\begin{array}{r} \$\ 4.25 \\ \times\ \underline{\quad 5} \\ \$21.25 \end{array}$$

		Item **Price**	Total **Price**
1.	Five Hut Burgers	_____	_____
2.	Six Colas	_____	_____
3.	Eight Jumbo Burgers	_____	_____
4.	Ten Tuna Sandwiches	_____	_____
5.	Four Beef Stew Dinners	_____	_____
6.	Thirteen Ham and Eggs	_____	_____
7.	Sixteen Tomato Salads	_____	_____
8.	Twelve Steak Dinners	_____	_____
9.	Nine Root Beers	_____	_____
10.	Seventeen Bacon Burgers	_____	_____
11.	Twenty-seven Puddings	_____	_____
12.	Thirty-four Ham Sandwiches	_____	_____
13.	Forty-two Plain Omelettes	_____	_____
14.	Twenty-nine Patty Melts	_____	_____

Solving multiplication and addition story problems
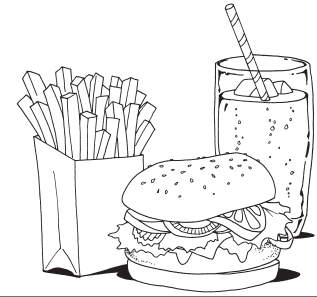
Use the menu to solve the story problems (answers exclude sales tax).

1. What would be the cost of 3 pieces of Lemon Pie, 4 pieces of Chocolate Cake, and 4 cups of Hot Tea?

   _____

2. Deanna and her friends had lunch at The Hamburger Hut. They ordered 6 Tuna Sandwiches, 3 Root Beers, and 4 Colas. How much did they spend?

   _____

3. How much would you be charged for 7 orders of French Toast, 4 glasses of Grapefruit Juice, and 3 cups of coffee?

   _____

4. Imagine that you and your family go out for breakfast. Your order includes 4 Plain Omelettes, 5 orders of Waffles, and 6 glasses of Tomato Juice. What will you owe?

   _____

5. Brady and several of his friends were going on a picnic. He stopped at The Hamburger Hut and ordered food to go. He bought 6 Jumbo Burgers, 8 orders of French Fries, 7 orders of Onion Rings, and 9 Colas. How much did Brady have to pay for food for the picnic?

   _____

6. Six hungry teenagers stop at The Hut after the game. They order 9 Bacon Burgers, 4 orders of Baked Beans, and 7 Milk Shakes. They also leave a $9.75 tip. How much money do they spend?

   _____