



My Fact Family Schoolhouse



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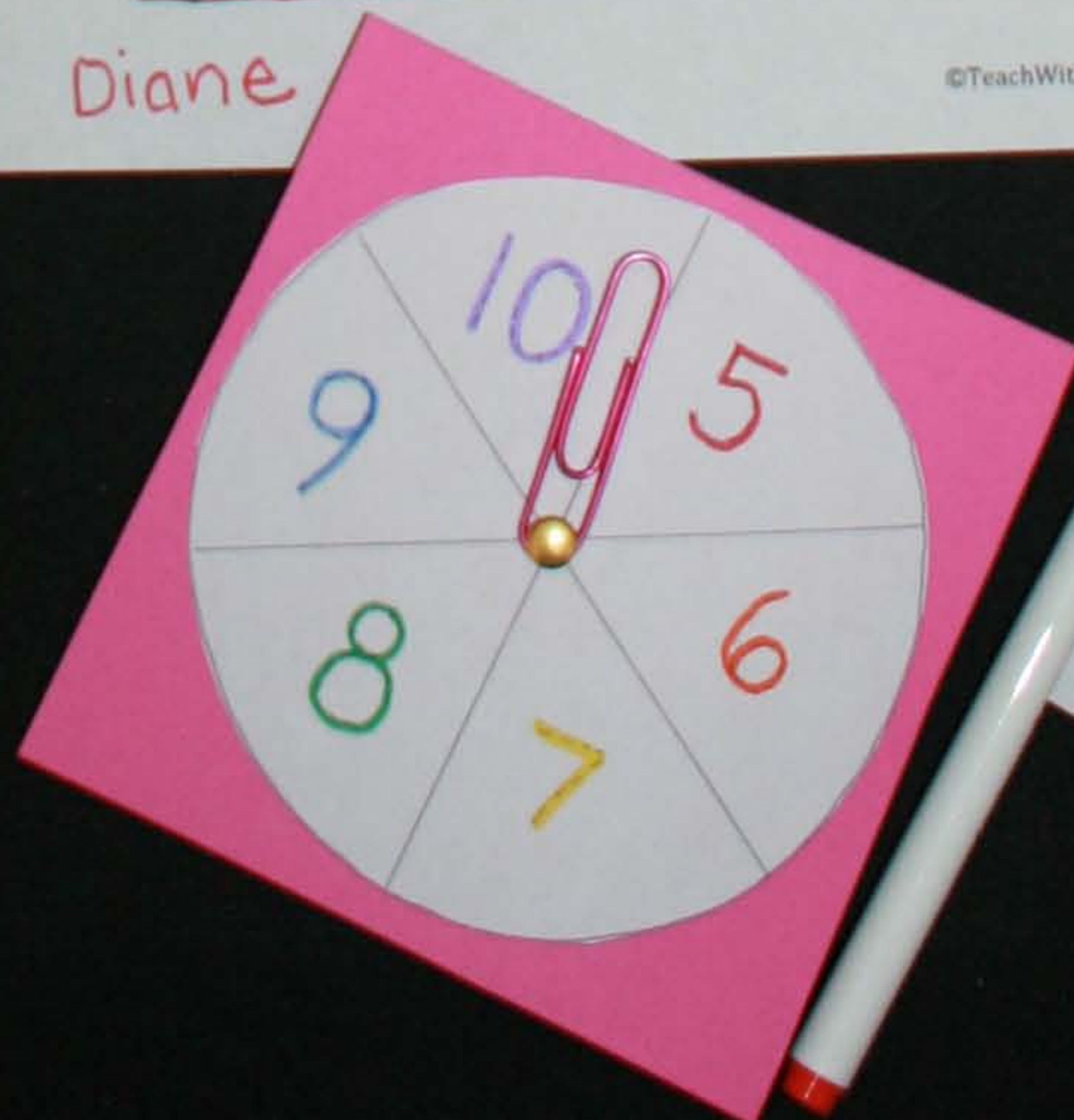
Diane

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CONGRATULATIONS!

Teacher: Mrs. Henderson
Date: May 30, 2012





What's A Fact Family?

A fact family is made up of 3 numbers.

Just as in any family the members, or numbers, are related. In almost all cases there are at least four math facts to be made with them.

Fact Family Relationships

In the family 7, 3 and 10 they are related because you can add two of the numbers to get the last number.

- $7 + 3 = 10$

You can also switch the first two numbers, using the commutative property of addition, and still get the same answer.

- $3 + 7 = 10$

Fact Family Cousins

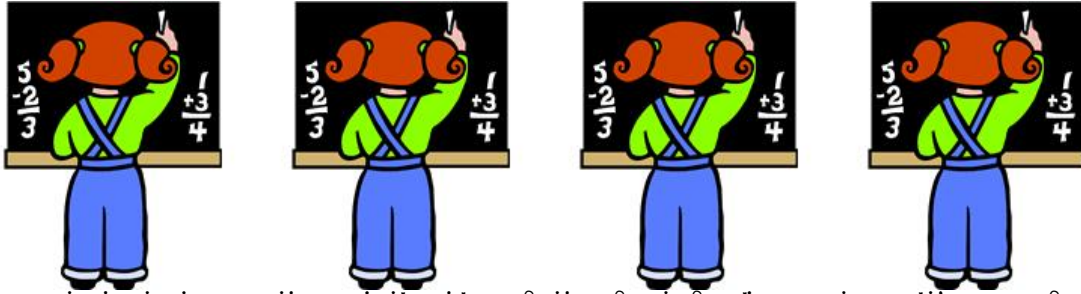
If addition is the direct relationship amongst these family members, then subtraction is the family cousin through the inverse property.

Subtraction is the opposite of addition, but it's still related. The problems still only uses the three members of the family.

- $10 - 3 = 7$
- $10 - 7 = 3$

Keeping Track of All Family Members

What's the big deal?



Once students know the relationships of the fact family members, it's easy for them to see what number is missing at a quick glance.

Solving addition and subtraction problems is then much easier and starts to become automatic.

For example, this problem:

$$\bullet \quad 7 + \underline{\quad} = 10$$

Your child should quickly be able to recognize 3 as the missing family member.

Fact family houses are a great way to teach visual learners about the relationships among the three numbers. In that family.

Knowing fact families, especially those, which create number sentences that add up to 10, are a key part of math.

"It's a wonderful day in the neighborhood!" brings back memories of Mr. Rogers when I was little. Making fact family houses and putting them in a neighborhood can help students learn the "tens facts" by heart.

Have children list the Tens Facts. Figure out the combination of numbers that add up to 10. Begin by asking the question *"What do I need to add to 1 to make 10?"*. Be sure to list the inverse facts as well. For example, $1 + 9 = 10$, Does $9 + 1 = 10$ too?

Because I'm a teacher, and we are in school, I thought making a neighborhood of schoolhouses would be a fun theme.

In the "attic" windows, have students write the three numbers that make up your fact family. Children should write the largest number in the top window.

I used Tens Facts for my sample, starting with $1 + 9$, so the numbers in the windows are 10, 9 and 1.

Students complete the two addition problems, using the list they've created.

Once they've figured these out, the subtraction problems should be easy.

If you need to prompt, ask something along the lines of *"If I added 9 to 1 to get 10, what do you think would be left if I took that 9 away again?"*.

To create a neighborhood, run off the schoolhouses on 10 different colors of construction paper. I like to teach a rainbow pattern later on in the year, so now is a great time to start with those 1st six bright colors.

Next, have students fill in the rest of the Tens Facts, one in each house, to create the entire neighborhood.



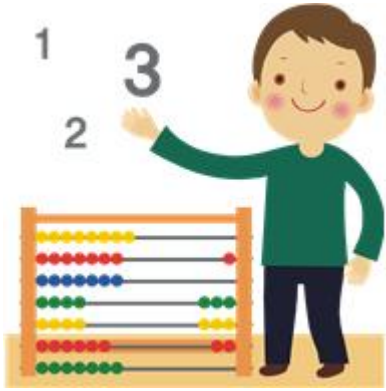
Once the neighborhood is finished, children use a square of Scotch tape to hinge them together.

Run off the covers for each fact family on white copy paper. Students cut those out, solve the problems and then glue them to the back of the first house in the fact family.

When they are completed, students will have a variety of different colored fact family house booklets that they can stand up and make into neighborhoods of schoolhouses.

Another thing you can do with this packet that will help reinforce fact families, is to show students how to write the families using a T bar.

I tell children that they are becoming T-eriffic at making fact families so they get to make T-Bars.



Students simply trace the T in red and write the missing number on the other side of the bar. This number when added to the other will make the number on top of the T bar. You can turn this sheet into a “mad-minute” and time students.

The Fact Family Spinner Game is also another way to get the facts reinforced.

Children spin the spinner, whatever number they land on, they find that number tile and place it in the top attic window of their schoolhouse.

They decide what other numbers they are going to choose to make a fact family for that number and fill in the remaining tiles and then X-off that fact family on their recording sheet.

The first student, who completes all of the fact families, wins the game.

Finally, the last way I review fact families with students is with mini-dry erase boards that I make out of glossy ink jet paper.

You can buy an entire box of paper at Sam's Club, Costco or any of the office supply stores for around \$10, with anywhere from 100-200 sheets.

Cut strips the length of the paper a tad shy of 4 inches wide.

Buy a box of long colored envelopes. Seal the envelopes and snip off the ends so that they are 4 inches long.

When you write on the glossy side of the paper with a dry erase marker it easily wipes off just as if you were using a dry erase board!

I bought a pack of white washcloths and cut them into small squares.

There are several fun ways you can use these envelope dry erase boards:



Teacher writes down two equations on theirs and shows it to the students.

Students copy the equations and then put the “secret solution” at the end of the board and cover it with the envelope, holding their board in the air when they are done.

When the teacher says, “Reveal!” she can see at a glance who has the correct answer.

Teachers can write down a “secret solution” and students can figure out 2 equations that match. (Teacher would list all of the equations that would be correct on their answer key.) Students would hold up their 2 solutions with answers.

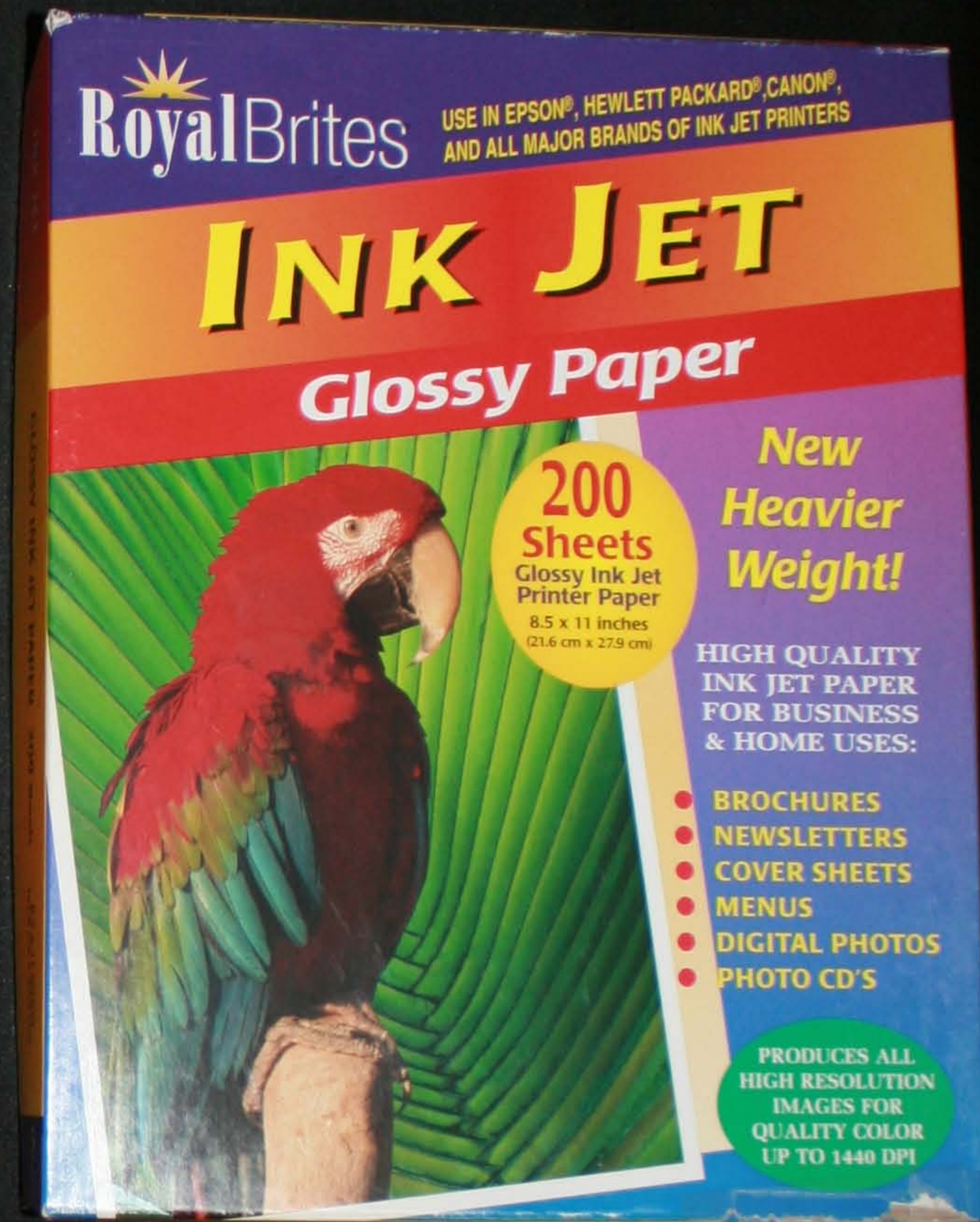
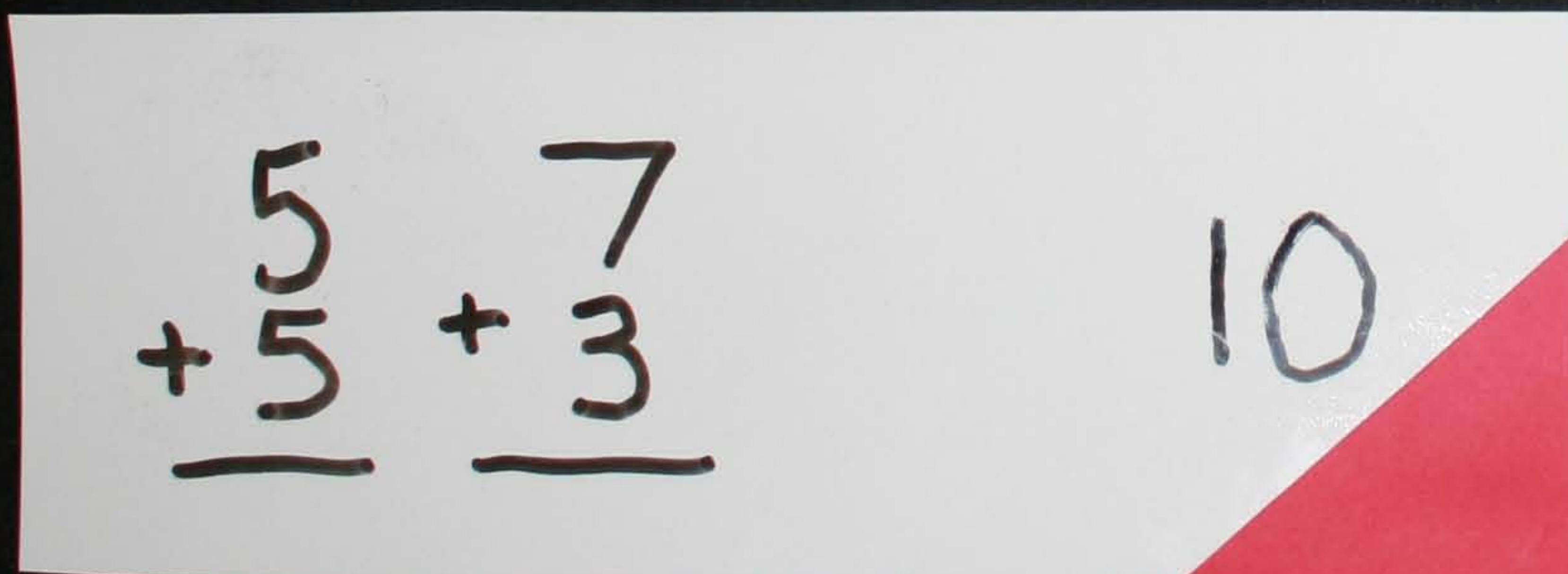
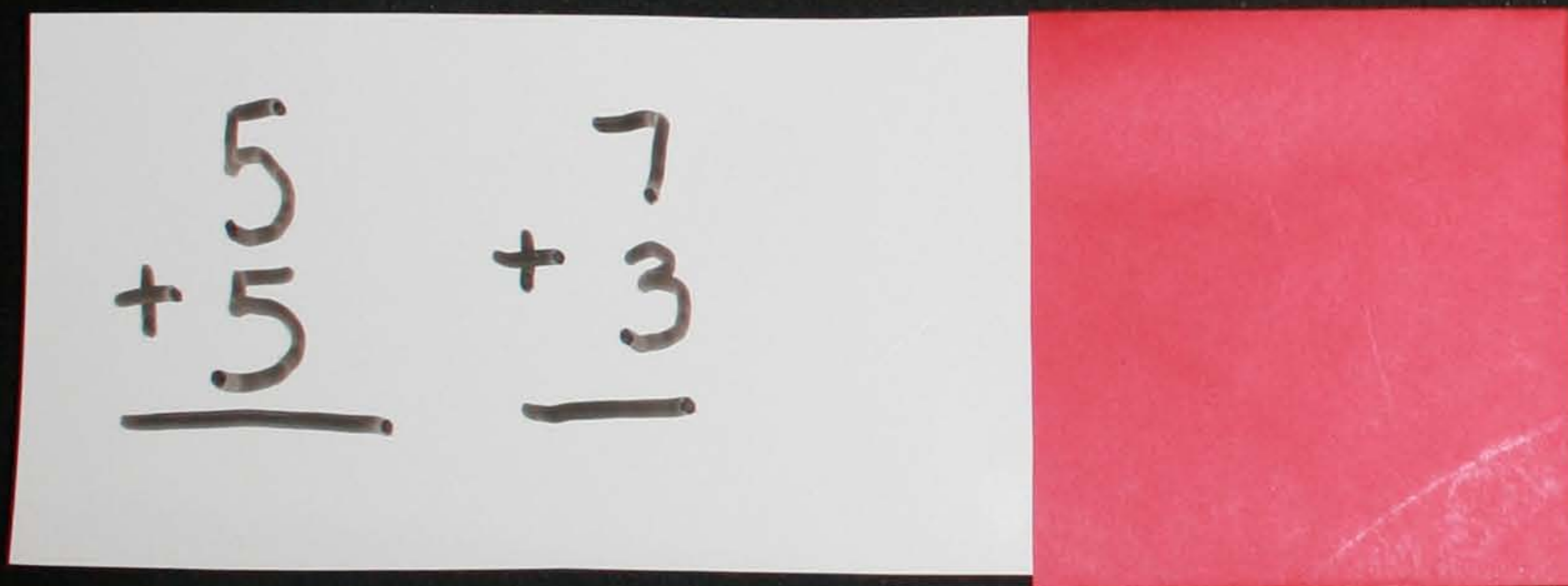
Because these are so inexpensive to make, you could make them for your students every year, so they could keep them. Have them store them in their desk, cubby, or folder for easy access. Use them for math, name writing, letters, shape identification etc.

If you like to have home-school connections for your students, a great way to practice their math facts is by logging them into **Xtra Math**.

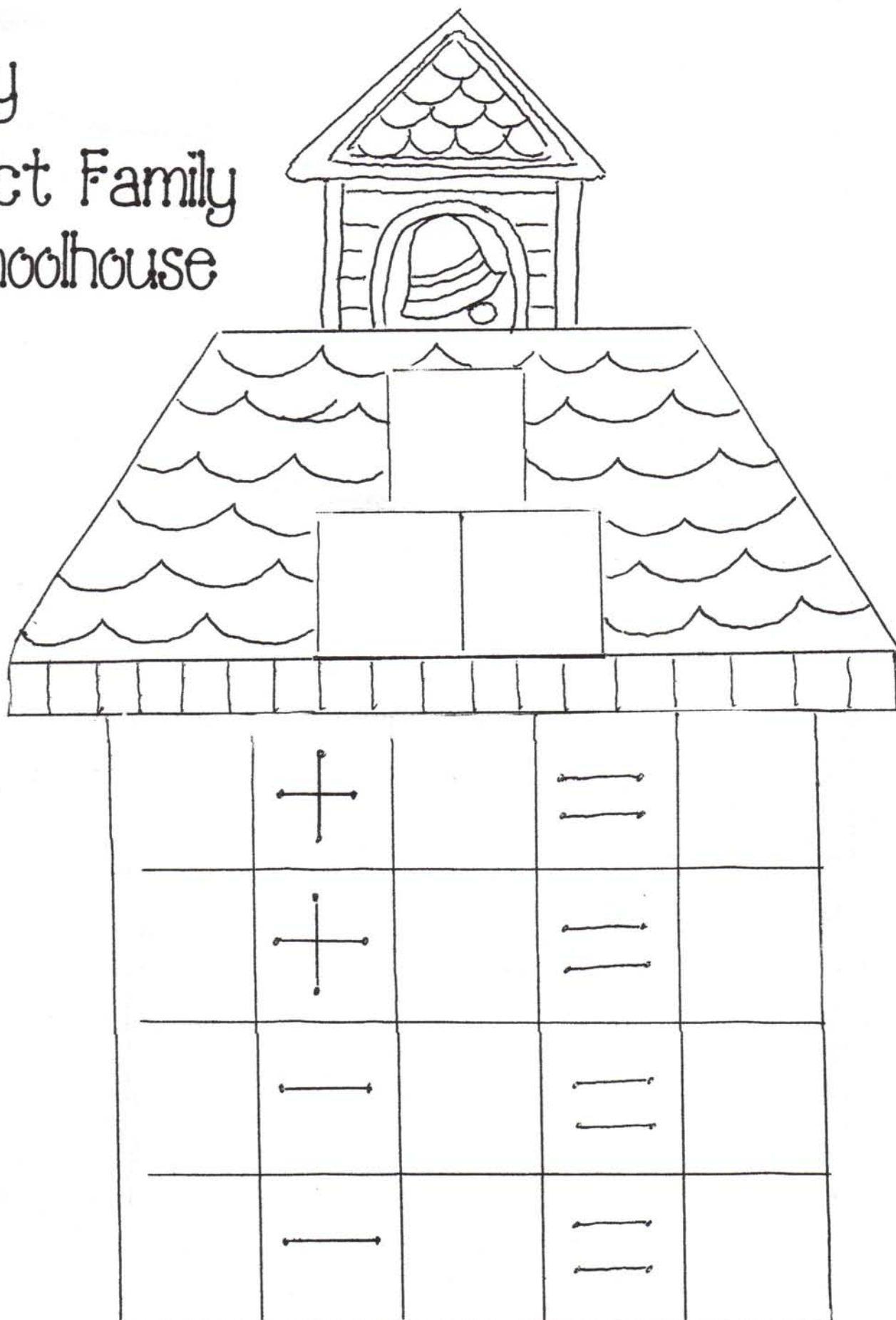
It's a free online program: <https://www.xtramath.org/> run by a non-profit organization, that is dedicated to math achievement for all. This is less than 10 minutes a day of math that your students can work on at home to increase their recognition of math facts. The program is free, simple and includes progress reports. I found it while surfing the net. It's recommended by Edmodo, and worth checking out to see if it fits your needs.

I hope these ideas have added to your math bag of tricks, to help make teaching in your neighborhood, a bit more wonderful!

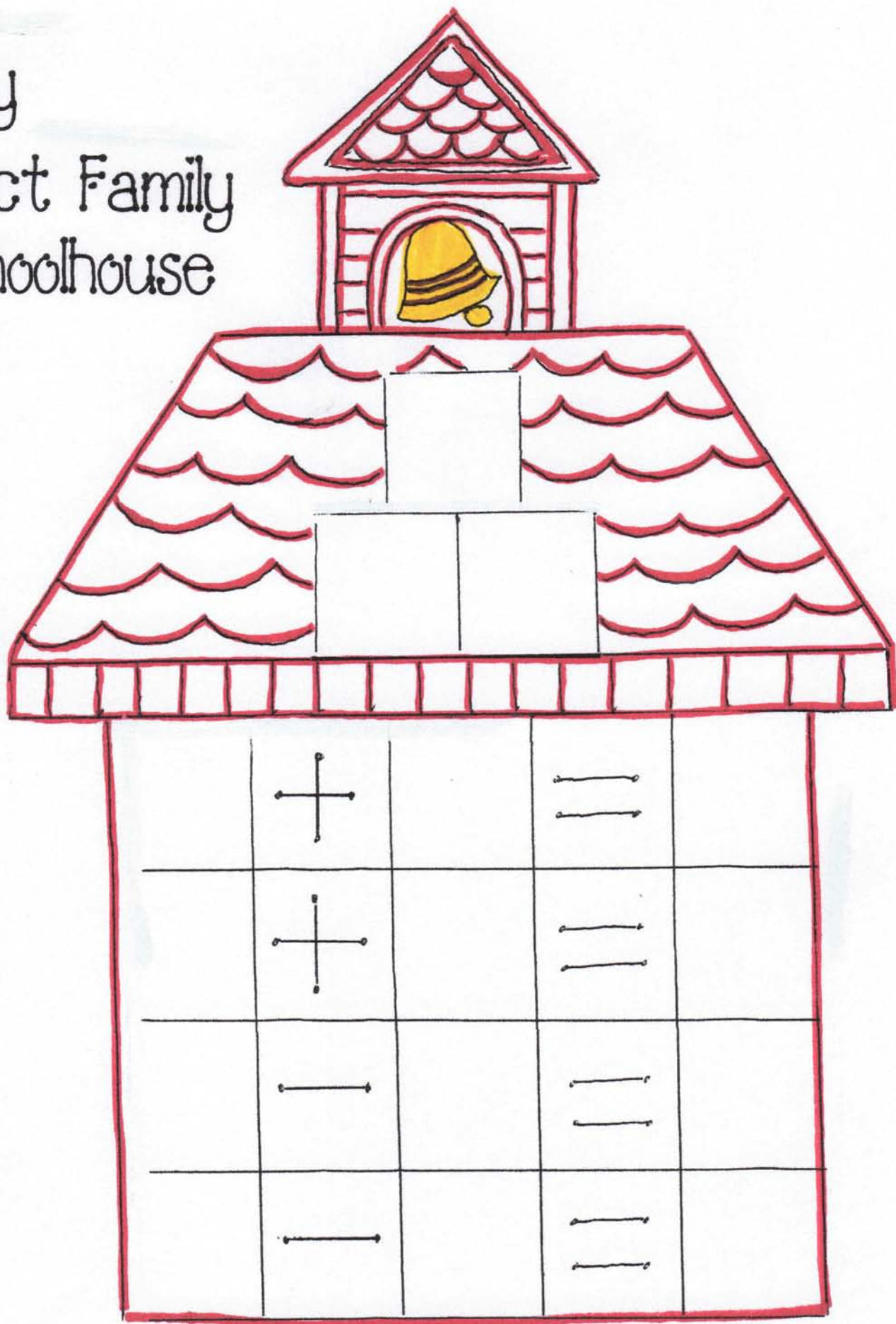
“Too often we give children answers to remember, rather than problems to solve.” –Roger Lewin



My Fact Family Schoolhouse

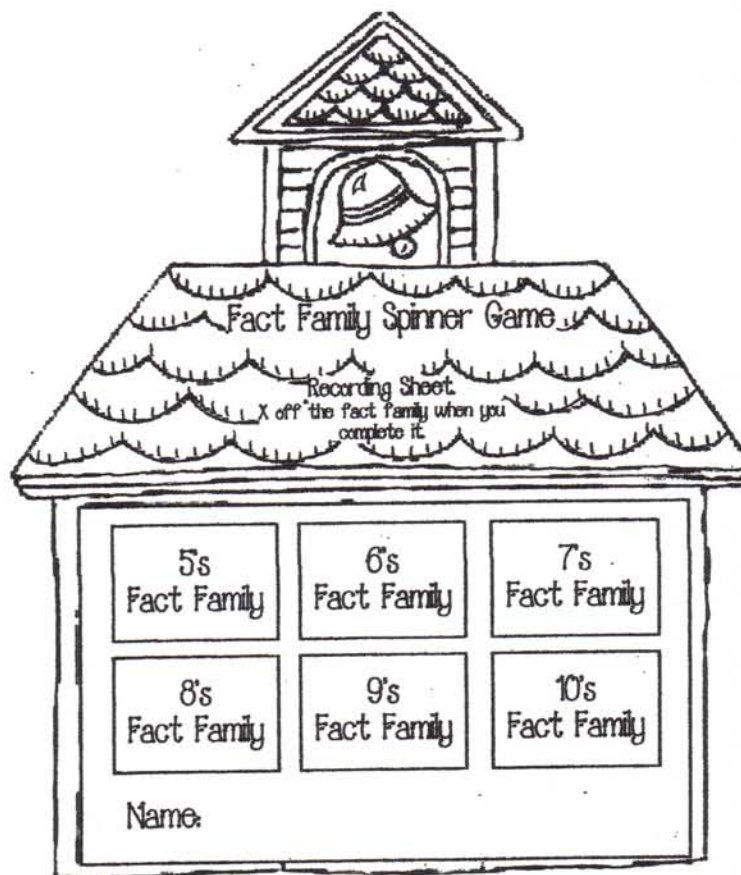
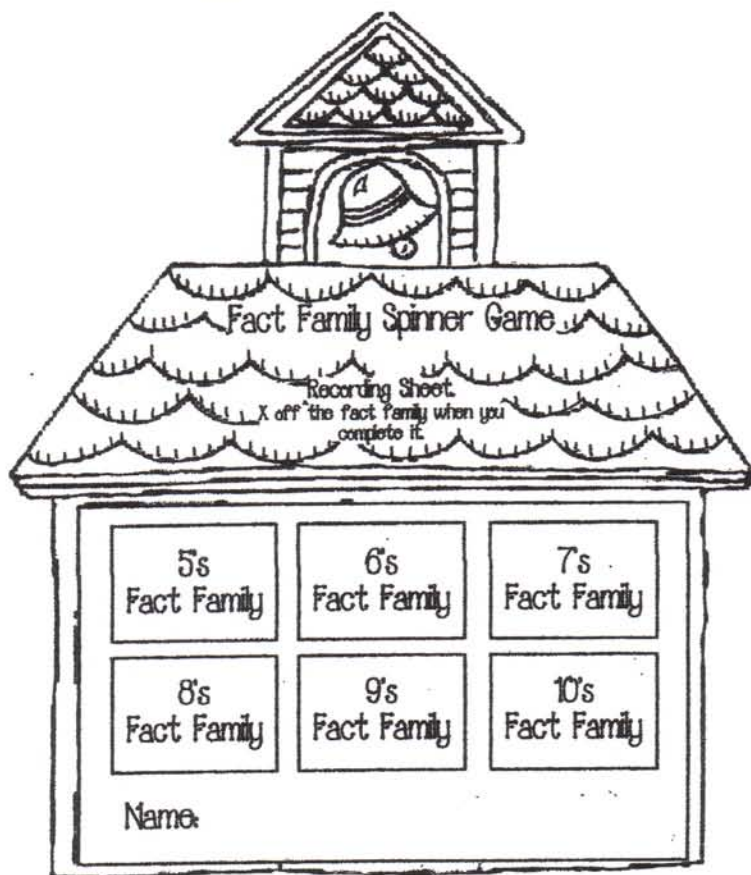
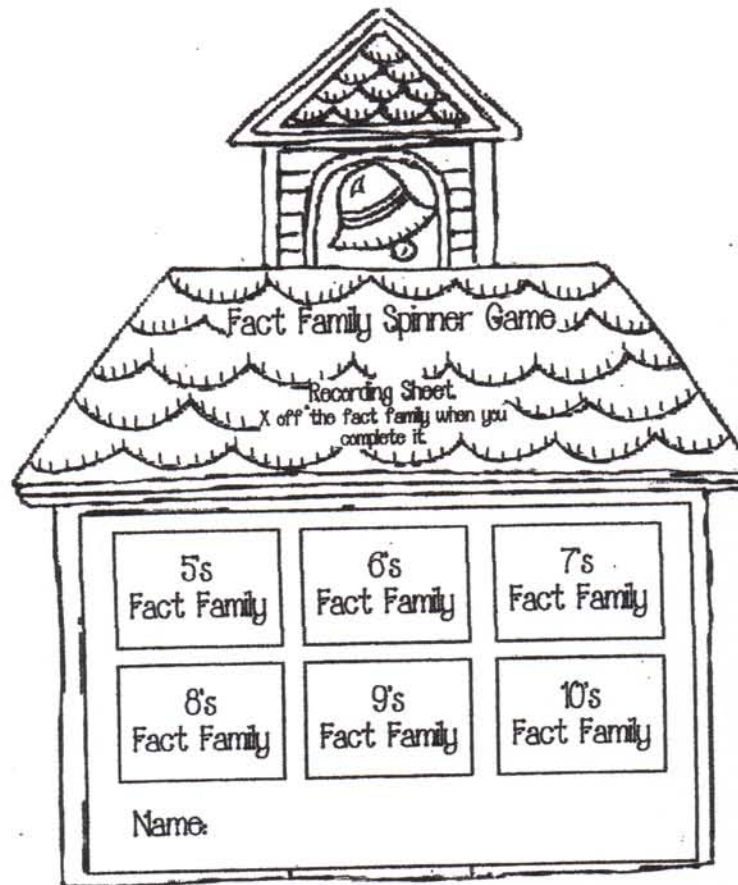
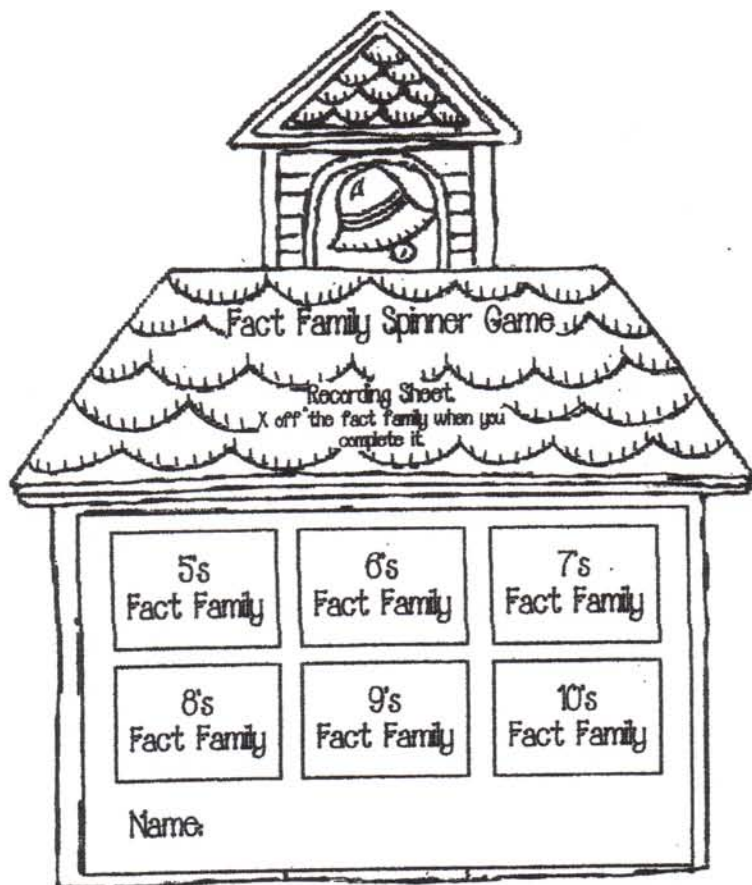


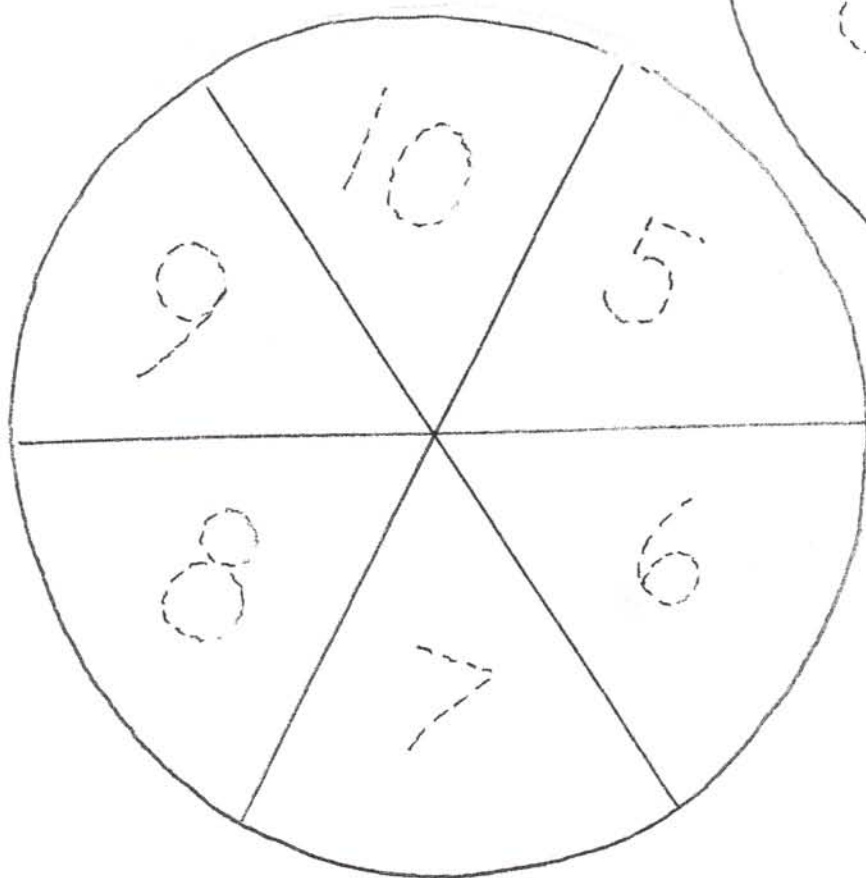
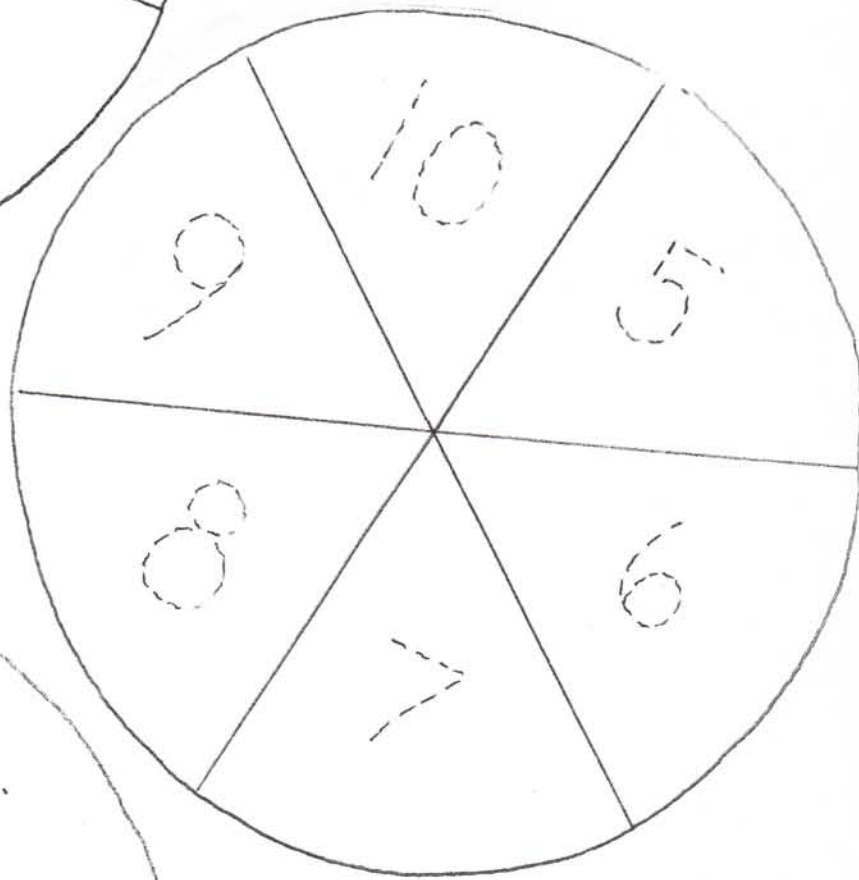
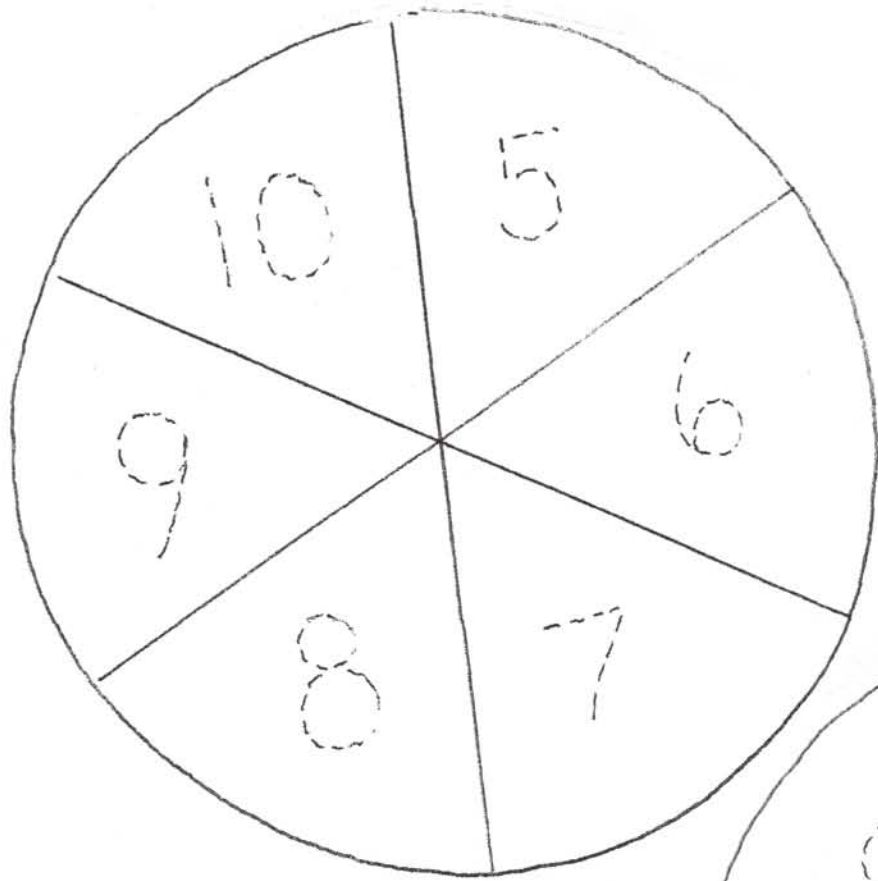
My Fact Family Schoolhouse



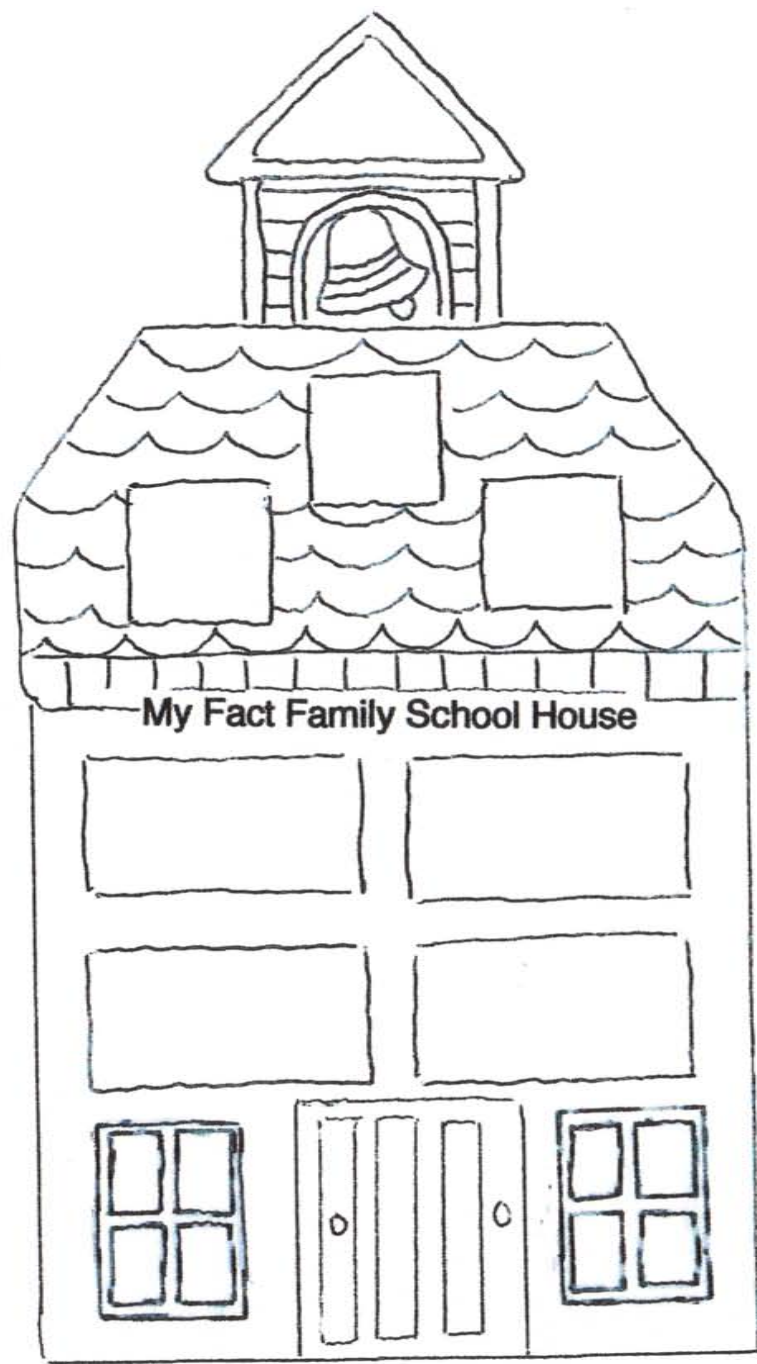
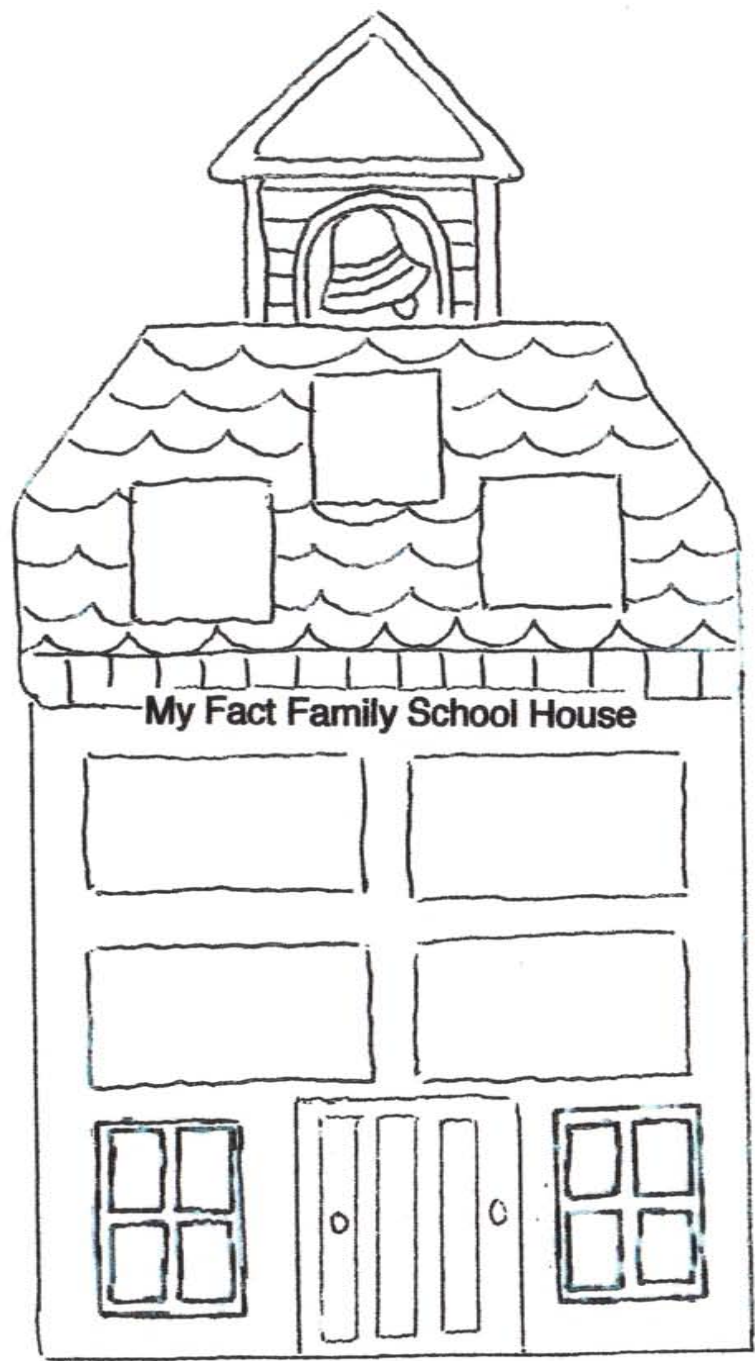
1	1	1	1	1	2	2	2
2	2	3	3	3	3	3	4
4	4	4	4	5	5	5	5
5	6	6	6	6	6	7	7
7	7	7	8	8	8	8	8
9	9	9	9	9	10	10	10
10	10	0	0	0	0	0	

Run off on card stock or construction paper, laminate and cut out.





Fact Family
Spinners



Run off on 10 different colors of construction paper.

My Fact Family Schoolhouse For The Number 7

7 and 0

$7 + 0 =$

$0 + 7 =$

$7 - 7 =$

$7 - 0 =$

5 and 2

$5 + 2 =$

$2 + 5 =$

$7 - 2 =$

$7 - 5 =$

6 and 1

$6 + 1 =$

$1 + 6 =$

$7 - 1 =$

$7 - 6 =$

4 and 3

$4 + 3 =$

$3 + 4 =$

$7 - 4 =$

$7 - 3 =$

My Fact Family Schoolhouse For The Number 6

6 and 0

$6 + 0 =$

$0 + 6 =$

$6 - 6 =$

$6 - 0 =$

4 and 2

$4 + 2 =$

$2 + 4 =$

$6 - 4 =$

$6 - 2 =$

5 and 1

$5 + 1 =$

$1 + 5 =$

$6 - 1 =$

$6 - 5 =$

3 and 3

$3 + 3 =$

$6 - 3 =$

My Fact Family Schoolhouse For The Number 5

5 and 0

$5 + 0 =$

$0 + 5 =$

$5 - 5 =$

$5 - 0 =$

4 and 1

$4 + 1 =$

$1 + 4 =$

$4 - 1 =$

$5 - 4 =$

3 and 2

$3 + 2 =$

$2 + 3 =$

$5 - 2 =$

$5 - 3 =$

Fact Family
Covers

My Fact Family Schoolhouse For The Number 10

10 and 0

$10 + 0 =$

$0 + 10 =$

$10 - 10 =$

$10 - 0 =$

9 and 1

$9 + 1 =$

$1 + 9 =$

$10 - 1 =$

$10 - 9 =$

8 and 2

$8 + 2 =$

$2 + 8 =$

$10 - 2 =$

$10 - 8 =$

7 and 3

$7 + 3 =$

$3 + 7 =$

$10 - 3 =$

$10 - 7 =$

6 and 4

$6 + 4 =$

$4 + 6 =$

$10 - 4 =$

$10 - 6 =$

5 and 5

$5 + 5 =$

$10 - 5 =$

My Fact Family Schoolhouse For The Number 9

9 and 0

$9 + 0 =$

$0 + 9 =$

$9 - 9 =$

$9 - 0 =$

8 and 1

$8 + 1 =$

$1 + 8 =$

$9 - 1 =$

$9 - 8 =$

7 and 2

$7 + 2 =$

$2 + 7 =$

$9 - 2 =$

$9 - 7 =$

6 and 3

$6 + 3 =$

$3 + 6 =$

$9 - 3 =$

$9 - 6 =$

5 and 4

$5 + 4 =$

$4 + 5 =$

$9 - 4 =$

$9 - 5 =$

My Fact Family Schoolhouse For The Number 8

8 and 0

$8 + 0 =$

$0 + 8 =$

$8 - 8 =$

$8 - 0 =$

7 and 1

$7 + 1 =$

$1 + 7 =$

$8 - 1 =$

$8 - 7 =$

6 and 2

$6 + 2 =$

$2 + 6 =$

$8 - 2 =$

$8 - 6 =$

5 and 3

$5 + 3 =$

$3 + 5 =$

$8 - 3 =$

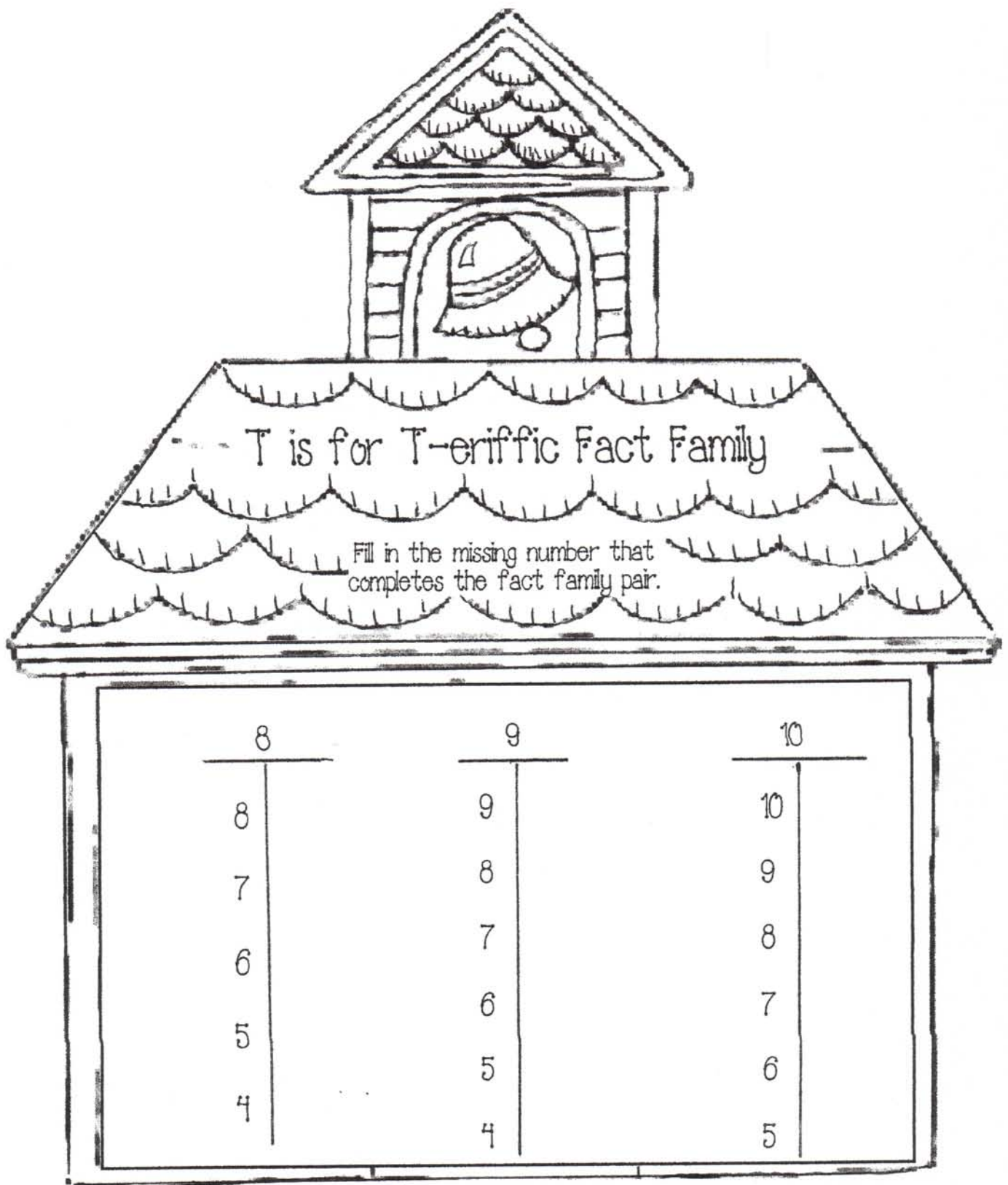
$8 - 5 =$

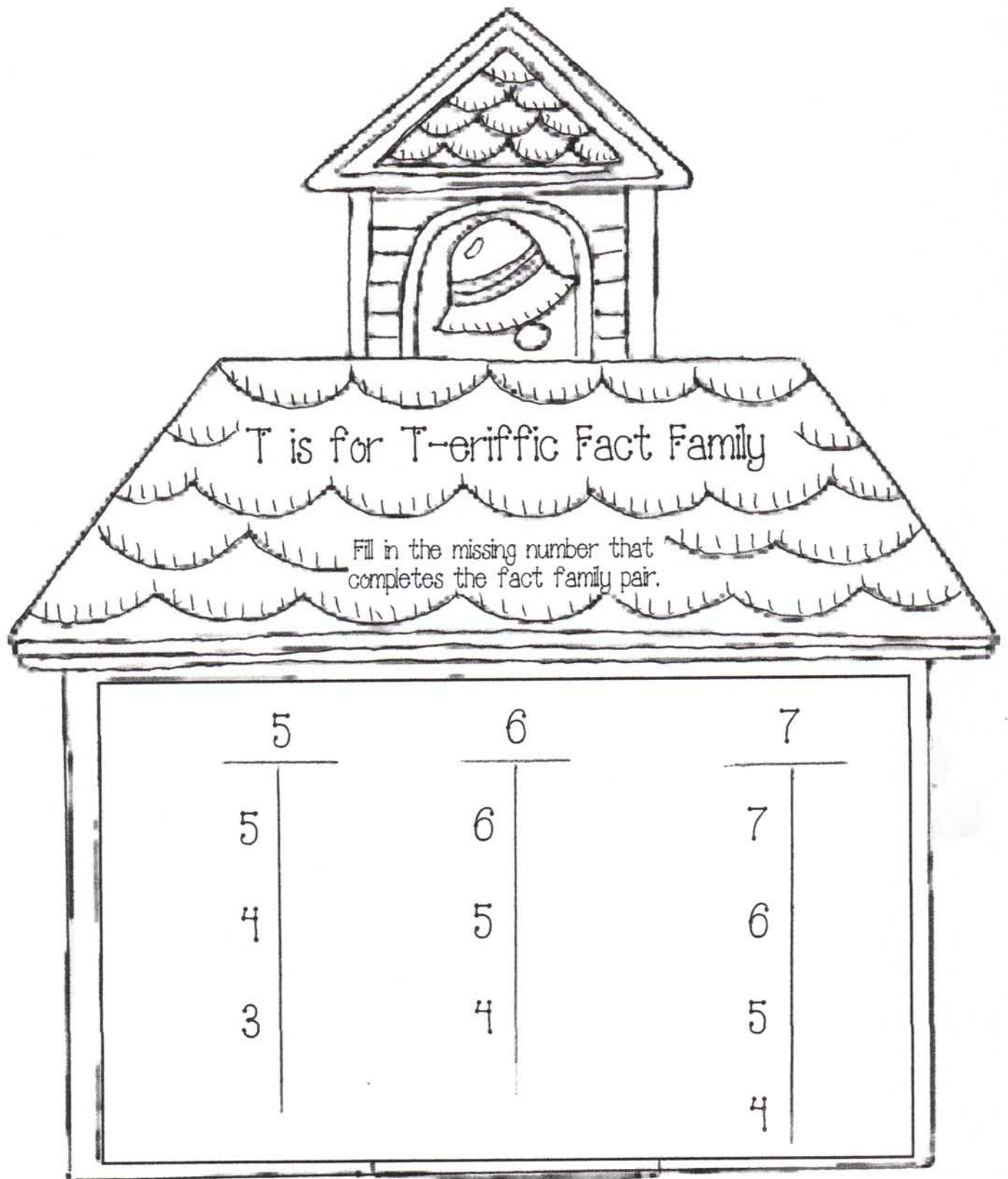
4 and 4

$4 + 4 =$

$8 - 4 =$

Fact Family
Covers.







conGRatulations!

Teacher: _____

Date: _____