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Notes for Parents

Remember that there is a lot of memorization involved with learning multiplication, just as there was with addition and subtraction. The student is older, but this is still something that is completely new to them and will take time to master. Be patient, and make it as much fun as possible so they do not get discouraged.

Spend a little time each day with flash cards (possibly 10-15 minutes). Be sure to include some that the student knows so they will not get discouraged by getting too many wrong at one time. Then, find ways to practice the multiplication facts that the student gets wrong.

Some possibilities are:

Write the fact (with the answer) on a piece of paper and post it on the refrigerator, tape it to a mirror, or put it up wherever your student is likely to see it during the day. Each time the student sees the multiplication fact, they are to repeat it to themselves. This can help them learn it. If you have younger children in the family, tell them what the paper says (such as 2 times 2 equals 4) and they may want to take part in the game. They may know much of their times tables before they are even at an age to need to know these facts.

Print off coloring sheets if your student likes to color. In pencil, write the facts they are working on in certain parts of the picture. Whenever they see the fact, they must read the fact to themselves and color that part of the picture a certain color (For example if the fact they are having trouble with is 2 X 2 = 4, you could write it on the sky and 4 could mean they have to color that part blue.)

It does not hurt to have the student write the fact a few times if they get it wrong when using the flash cards, but don’t wear them out with repeated writing. They may get bored and write without really concentrating. They will not learn the fact if they are just copying and not concentrating on what they are doing.

If your student likes to use the manipulatives, you could start them with a certain number of manipulatives and ask them to find as many ways as they can to make that total. For example, if they start with 30 manipulatives, they could make 1 group of 30 (1 X 30 = 30), 2 groups of 15, 3 groups of 10, and so on. This gives them a way to manually work with the numbers, which some students like more than just trying to memorize the facts.

Another game would be to have everyone stand behind their chair at mealtime. Ask each person a question and if they get it correct, they can sit down. If they are incorrect, they have to answer another question. Don’t make the questions too hard as it could be embarrassing to get too many incorrect in front of the entire family, but it gives you a chance to ask each student in your family a question in whatever subject you feel they need a little extra review in. It would even be more fun if the students get to take turns (only one per meal per person unless the answer is incorrect) asking mom and dad a question.
A possibility, if you do not want to be quite so formal in reviewing, would be to have fun by asking a question as the student is walking through the room you happen to be in. For example, if you are in the kitchen and the student comes through on their way to their room to get a football to use outside, yell out a multiplication fact and they can yell back the answer as they walk through. This can be used at any time during the day. Try to only include an occasional question the student is having trouble with, but use this mainly for review as you do not want the student to start avoiding you so they do not get answers wrong! Also, by getting more answers correct, the student will build confidence that they are learning this and will get better with time.

You may want to make a chart to mark each fact that the student gets correct. You can color a square, or add a sticker for each correct fact when using the flash cards. When a student gets a certain number of facts correct (fills a certain section of the chart), they could get a prize. The prizes could be something like staying up an extra 5 minutes, choosing what they want for lunch (within reason) on a certain day, or whatever fits your lifestyle. When the student is having a lot of trouble with a certain fact and finally gets it correct, they may get 2 correct marks on the chart to celebrate and get closer to whatever the prize is. Learning is certainly a goal itself, but students sometimes respond better to more immediate goals. The fact that they need to know multiplication to progress in math is a bit abstract for them to get especially excited about at this time in their lives. Getting an extra cookie, staying up later, an extra 5 minutes of playtime, or whatever the prize may be could be more motivating for them.

These are only suggestions. You know your student and your teaching style better than anyone. It is important to do what you think is best for both of you.
You might think that multiplication is going to be a hard thing to learn, but you will be surprised how easy multiplication is. There is a lot of memorizing, but if you take your time, you’ll remember it just by doing it over and over again.

Multiplication is a very important part of arithmetic. You will need to know how to do it well to be able to learn many of the harder types of math you will need when you are older.

Multiplication is really a faster way of doing addition. You are probably saying, “What? I already know how to add. I learned that a long time ago.” That’s right, you did, and you can learn this too. Let’s look at multiplication and see how easy it will be.

We will start with something easy like 2 X 5. The X in the middle means you are going to multiply, and you read the problem, “two times five.” The two is called the multiplier and the 5 is called the multiplicand. Sometimes, people just call both of the numbers factors. The answer is called the product. Now, back to our problem. When you have a problem like 2 X 5, it means that you have two groups of five or that you are going to add two fives together. 2 X 5 is the same as 5 + 5. We know that 5 + 5 = 10, so we know that 2 X 5 = 10.

If we had a problem, like 3 X 5, we read it “three times five” and it means that we have three groups of five. So we are going to add three fives together. So, 5 + 5 + 5 = 15, and 3 X 5 = 15.

Okay, now you are probably thinking, “If that is all there is to multiplication, why can’t I just add, because I already know how to do that?” Well, the reason is that when you get to a problem like 12 X 12, or even 30 X 5, it would take a long time to add all those numbers together. Memorizing the multiplication tables makes it much faster so that even hard problems like 30 X 5 are easy and fast to do.

Now that we know why we want to learn to multiply and understand what multiplication is, let’s get started. The first thing to remember is that any number times 0 equals 0. That means that if you have a problem like 2 X 0, it equals 0, and 100 X 0 still equals 0. Do you know why? It’s because the first number tells us how many groups of the second number we are going to add together. If the first number is 2, it means we are going to add two groups of nothing together and if the first number is 100, it means that we are going to add one hundred groups of nothing together, so it always equals 0!

The next thing to remember is that 1 times any number equals the number you are multiplying. For example, if you have 1 X 2, it equals 2 because you are only adding one group of 2. If you are only adding one group of 2, you have to end up with the 2 you started with, and no more. If you have 1 X 50, it equals 50 because you are only adding one group of 50, and nothing else to it.

Let’s look at this another way. We will use dolphins to show what we are doing.
1 X 3 = _______  This means I have one group of three, so I have

or three dolphins. 1 X 3 = 3

Now, if the problem is 2 X 3, we have:  2 X 3 = _____  This means I have two groups of three dolphins each, so I have

or six dolphins. 2 X 3 = 6

If the problem is 3 X 0 = __________  It means I have three groups of no dolphins, so I have zero dolphins. 3 X 0 = 0

If the problem is 3 X 3 = _______  This means I have three groups of three dolphins each, so I have

or nine dolphins. 3 X 3 = 9.

Now that we have seen how multiplication works (it is a fast way of adding after you learn the multiplication tables) and we have seen it with pictures so we can see how multiplication works with groups of things; let’s start learning the multiplication tables so we can begin using this great way of doing arithmetic.
Worksheet 1

The 1 Times Table

Copy the 1 times table on the lines.

1 × 0 = 0

1 × 1 = 1

1 × 2 = 2

1 × 3 = 3

1 × 4 = 4

1 × 5 = 5

1 × 6 = 6

1 × 7 = 7

1 × 8 = 8

1 × 9 = 9

1 × 10 = 10

1 × 11 = 11

1 × 12 = 12
Worksheet 2

In the 1 times table written below, fill in the numbers that are missing in each of the lines. If you like, you can use the pictures attached at the end of the book to work out the problems, or you can draw pictures to work out the problems.

1 X 0 = ______ Think about it. One group of zero gives you how many?

______ X 2 = 2 Think about it. How many groups of two gives you two total?

1 X 4 = ______

1 X ______ = 10

1 X ______ = 6

______ X 7 = 7

______ X 5 = 5

1 X ______ = 3

1 X 8 = ______

______ X 11 = 11

1 X ______ = 1

______ X 9 = 9

1 X 12 = ______
Many times, you will see multiplication problems written like this:

\[
\begin{array}{cc}
1 & 1 \\
\times 1 & \times 2 \\
1 & 2 \\
\end{array}
\]

We will do some problems written both ways for practice.

Here are the problems, you write the answers. (Use pictures if it helps you to see what you are doing.)

**Worksheet 3**

\[
\begin{align*}
1 \times 7 &= \underline{\phantom{0}} \\
1 \times 12 &= \underline{\phantom{0}} \\
1 \times 9 &= \underline{\phantom{0}} \\
1 \times 0 &= \underline{\phantom{0}} \\
1 \times 4 &= \underline{\phantom{0}} \\
1 \times 8 &= \underline{\phantom{0}} \\
1 \times 2 &= \underline{\phantom{0}} \\
1 \times 11 &= \underline{\phantom{0}} \\
1 \times 3 &= \underline{\phantom{0}} \\
1 \times 5 &= \underline{\phantom{0}} \\
1 \times 10 &= \underline{\phantom{0}} \\
1 \times 6 &= \underline{\phantom{0}} \\
1 \times 1 &= \underline{\phantom{0}} \\
\end{align*}
\]
Worksheet 4

Now, let's try the 2 times table.

The 2 Times Table

<table>
<thead>
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<th>2 X 0 = 0</th>
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<tbody>
<tr>
<td>2 X 1 = 2</td>
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<tr>
<td>2 X 2 = 4</td>
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<tr>
<td>2 X 3 = 6</td>
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<tr>
<td>2 X 4 = 8</td>
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<tr>
<td>2 X 5 = 10</td>
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<td>2 X 6 = 12</td>
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<td>2 X 7 = 14</td>
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<td>2 X 8 = 16</td>
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<td>2 X 9 = 18</td>
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<td>2 X 10 = 20</td>
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<tr>
<td>2 X 11 = 22</td>
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<td>2 X 12 = 24</td>
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</tbody>
</table>

Copy the 2 times table on the lines.
Worksheet 5

In the 2 times table written below, fill in the numbers that are missing in each of the lines. If you like, you can use the pictures attached at the end of the book to work out the problems, or you can draw pictures to work out the problems.

2 X ______ = 18 Think about it. Two groups of how many will give you eighteen total?

2 X 1 = ______

______ X 3 = 6

2 X 8 = ______

2 X 0 = ______

2 X 6 = ______

2 X 10 = ______

2 X 4 = ______

______ X 11 = 22

______ X 7 = 14

2 X ______ = 4

2 X ______ = 24

2 X ______ = 10
If you look very closely at the 1 times table and the 2 times table, you will see that $1 \times 2 = 2$ and $2 \times 1 = 2$. That is because it does not matter if you add one group of two together ($2 = 2$) or two groups of one together ($1 + 1 = 2$), you get the same answer. This means that as you learn each of the times tables, there will be fewer and fewer new problems to memorize. You will already know many of the answers because you learned the times tables that came before!

Let’s look at some sea horses to see this again.

$1 \times 2 = ______$  
This means I have one group of 2, so I have

or two sea horses. $1 \times 2 = 2$

I could also have $2 \times 1 = ______$  
This means I have two groups of 1 sea horse each, so I have

or two sea horses. $2 \times 1 = 2$

Let’s practice.

**Worksheet 6**

Here are the problems; you write the answers. (Use pictures if it helps you to see what you are doing.)

$2 \times 6 = ______$  
$2 \times 8 = ______$  
$2 \times 4 = ______$

2
\[
\begin{array}{cccccc}
2 & 2 & 2 & 2 & 2 & 2 \\
\times 9 & \times 0 & \times 12 & \times 5 & \times 1 & \times 10 \\
\end{array}
\]

$2 \times 2 = ______$  
$2 \times 7 = ______$  
$2 \times 11 = ______$
Worksheet 7

Write the answers to the problems.

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Look at the pictures and write the problem that the pictures show. Example:

We have 2 groups of 2 seahorses each, so the problem is \(2 \times 2 = 4\)

We have _____ groups of _____ dolphins each, so the problem is _____ \(\times\) _____ = _____