How To Multiply Single-Digit Numbers Story Problems

Draw a picture or use manipulatives to help you solve the following word problems. Be prepared to prove your products to another person. After solving the problem, write each question and product as a math sentence.

1. A restaurant sold 8 hamburgers every day for a week. How many total hamburgers were sold during that week?

2. Mary had seven balloons at her birthday party last week. Sally has four times more balloons at her party than Mary did. How many balloons does Sally have at her party?

3. Fred makes 5 five dollars every month for taking care of Mr. Robert's rainbow lorikeet. If he saves all of his money over a 6-month period, how much money would Fred have at the end of the four months?

4. Corina was at the beach for five days and found 8 seashells every day. How many seashells did Corina find during the beach trip?

5. Alyssa goes out to lunch with Sam and Sara every week. Each person always orders the $9 lunch special. Alyssa agrees to pay the bill this time. How much does she have to pay?

6. The Arizona Squarefronts play a total of 7 baseball games during the day each month and 4 more are played at night each month. The baseball season lasts for 5 months. Find the product of baseball games that the Squarefronts play during the entire season?

7. Dallin found 9 dimes in the couch. How many cents did Dallin find?

8. The Jones family is going school supply shopping. There are five children in the family and each kid needs 4 binders for their school stuff. How many binders does the family have to buy?

9. Sally is planning to read four hours every day for each of the next eight days. What is the total product of what she will read?

10. Tim goes on a fishing trip with Dan. Tim catches 5 trout and 3 catfish. Dan is an expert fisherman and always catches twice as many trout as Tim. How many trout does Dan catch this trip?

How To Multiply Single-Digit Numbers Direct Operation Problems

Solve the following multiplying single-digit numbers problems in any way that you would like to. You can use manipulatives, pictures, logic or some other way. Make sure that you are able to prove that your product is correct to another person.

1. 3 x 4 =

2. 1 x 4 =

3. 2 x 10 =

4. 6 x 5 =

5. 7 x 8 =

6. 2 x 9 =

7. 2 x 3 =

8. 3 x 7 =

9. 9 x 5 =

10. 8 x 4 =

11. 1 x 4 =

12. 6 x 7 =

How To Multiply Single-Digit Numbers Teaching And Hypothesis Creation

Now that you have discovered a pattern in multiplying single-digit numbers, try teaching multiplying single-digit numbers to a sibling, parent or friend (have them pretend that they don't know how to multiply single-digit numbers). Each problem will have some directions as to how to teach or how not to teach the problem. Follow the rules and do the best you can. Remember that you are teaching them, NOT doing it for them. One important rule for each problem is that you are not allowed to touch anything, the person you are teaching has to do all the work!

1. 5 x 6
   Help them solve this problem by having them use a manipulative of some sort.

2. 8 x 2
   Help them solve this problem by having them draw a picture.

3. 6 x 7
   You can help them solve this problem any way you would like, but you have to keep your hands behind your back.

4. 3 x 9
   For this problem, you are not allowed to talk.

5. 1 x 10
   For this problem, you are not allowed to say any numbers.

6. 7 x 4
   For this problem, you are not allowed to say numbers and you need to keep your hands behind your back and close your eyes.

How To Multiply Single-Digit Numbers Hypothesis
Write a general rule for how to multiply single-digit numbers:

How To Multiply Single-Digit Numbers Hypothesis Test And Theorem

It's time to see if your multiplying single-digit numbers hypothesis will work every time in order to prove it as a true theorem. Solve each of the problems using only your hypothesis, word for word. Remember that when testing a hypothesis, you are only allowed to do exactly as the steps in your hypothesis direct. If you need to do something new, then you need to add to or write a new hypothesis. Then, solve each problem in a second, different way, using a model, to see if the product you arrived at with your hypothesis is the correct product.

1. A hardware store has a commercial every hour on a local television station. How many commercials will the store have in 4 hours?

2. Jarius would like to buy a beautiful small aquarium for his fish. Each aquarium costs $3. He decides not to buy an aquarium. How much money does Jarius spend on an aquarium?

3. A home goods factory puts 9 kitchen tables in each shipment. How many kitchen tables will there be in 11 shipments?

4. 0 x 3 =

5. 6 x 0 =

6. 4 x 1 x 6 =

7. 7 x 5 =

How To Multiply Single-Digit Numbers Theorem

Once you have tested your hypothesis and proven that it works for every problem, write your final theorem of how to multiply single-digit numbers below and also in your Definitions And Theorems book:

Supplemental Activity

Multiplication Table

Fill in the table by finding the products of the rows and the columns. There should be one product per box. For example, in the 6 column on the 3 row, you would find the product of 6 and 3 and then record this product in the box. This table can be a tool to help you as you move forward into more complicated multiplying theorems.

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

Follow-Up:

1. Color all the multiples of 9 between 0 and 90 on the multiplication table. Do you see a pattern in these numbers?

2. Color all the products on the downward diagonal (top left to bottom right) on the multiplication table to 100.
   a. What patterns do you see in the squares you colored?

   b. What patterns do you see in the products on either side of the squares you have colored?

3. Make a list of at least 5 more patterns you see in the table.