

Which Way Out?

**Family Note**

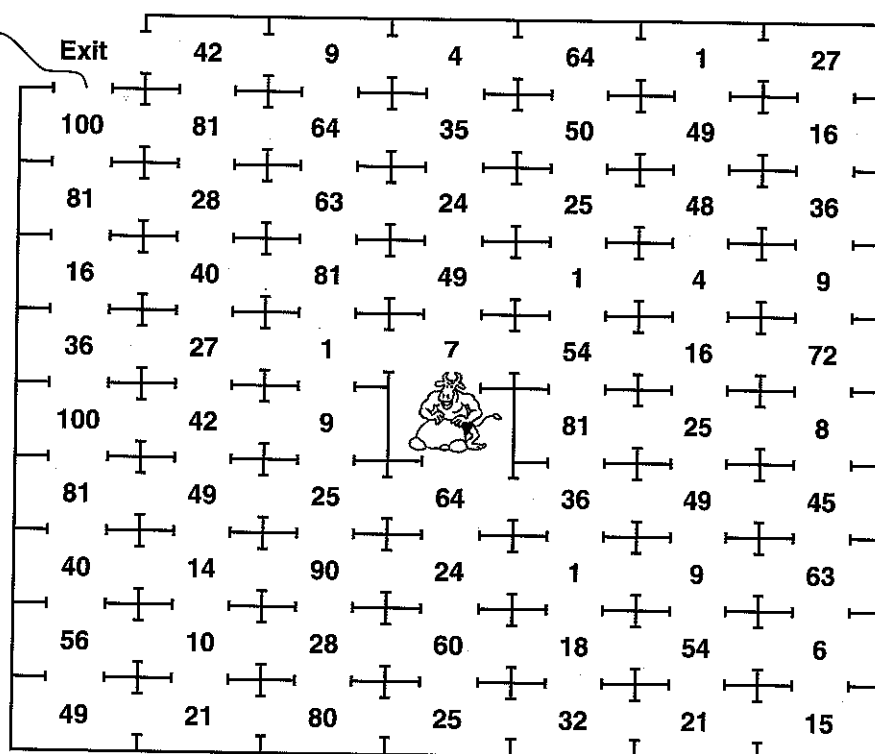
Today your child explored patterns in square products, such as 3×3 and 4×4 . The activity below provides practice in identifying square products. Have your child start at the picture of the Minotaur and use a pencil so he or she can erase wrong turns. If it would be helpful, suggest that your child mark each square product before attempting to find a path.

Please return this Home Link to school tomorrow.



According to Greek mythology, there was a monster called the Minotaur that was half bull and half human. The king had a special mazelike dwelling built, from which the Minotaur could not escape. The dwelling, called a **labyrinth** (la buh rinth), had many rooms and passageways that formed a puzzle. Whoever went in could not find their way out without help. One day, a Greek hero, Theseus, decided to slay the monster. To find his way out of the labyrinth, his friend Ariadne gave him a very, very long ball of string to unwind as he walked through the passageways. After Theseus slew the Minotaur, he followed the string to escape.

Pretend you are Theseus. To find your way out, you may go through only those rooms numbered with square products. Start at the Minotaur's chambers and draw a path to the exit.



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7•2**Factors and Products****Family Note**

Listen to your child explain what factors and products are before he or she writes the answers in the table. Then listen as your child tells you what he or she knows about multiplying by 1, multiplying by 0, and multiplying numbers that result in square products. Fact Triangles for the remaining multiplication/division facts are included with this Home Link.

Please return this Home Link to school tomorrow.

1. Explain to someone at home what factors and products are. Find the missing products and factors in the table.

2. Write what you know about the products when you multiply by 1.
- _____
- _____

3. Write what you know about the products when you multiply by 0.
- _____

4. Write what you know about facts with square products.
- _____

Factor	Factor	Product
3	5	15
7		14
4	10	
8	8	
9		45
864	1	864
10		100
0	999	
	48	48
243		0

Practice

Write these problems on the back of this page. Make a ballpark estimate for each. Solve. Show your work.

5.
$$\begin{array}{r} 7,201 \\ + 6,988 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 3,623 \\ - 457 \\ \hline \end{array}$$

Unit

ballpark estimate

ballpark estimate

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Multiplication Bingo (Easy Facts)

**Family Note**

Today the class learned to play *Multiplication Bingo*. This game is a good way to practice the multiplication facts. Ask your child to show you how to play the game; then play a couple of games. When your child is ready to practice harder facts, use the cards and list of numbers on the next page. Encourage your child to keep a record of the facts he or she misses.

Keep this Home Link at home.

Materials

- ☐ number cards 1–6 and 10 (4 of each)
- ☐ 8 pennies or other counters for each player
- ☐ game mat for each player

Players

2 or 3

Directions

1. Write each of the following numbers in any order in one of the squares on a game mat: 1, 4, 6, 8, 9, 12, 15, 16, 18, 20, 24, 25, 30, 36, 50, 100.
2. Shuffle the number cards. Place the cards facedown on the table.
3. Take turns. When it is your turn, take the top 2 cards and call out the product of the 2 numbers. If the other players do not agree with your answer, check it using a calculator.
4. If your answer is correct and the product is a number on your grid, place a penny or a counter on that number.
5. If your answer is incorrect, you lose your turn.
6. The first player to get 4 counters in a row, column, or diagonal or 8 counters on the game mat calls out *Bingo!* and wins the game.

If all the cards are used before someone wins, shuffle the cards again and keep playing.

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7•4**Parentheses Puzzles****Family Note**

Observe as your child adds parentheses and explains what to do first in the number sentence puzzles in Problems 1 through 4. If needed, assist your child in writing a correct number model for the Try This problem. You might ask how many gifts Dalia would need to fill 8 bags and how many she would need to also take care of Denise.

Please return this Home Link to school tomorrow.



Show someone at home how to add parentheses to complete the number sentences below. Remember that the parentheses are used to show what you do first.

1 a. $17 - 10 + 3 = 10$

1 b. $17 - 10 + 3 = 4$

2 a. $26 - 7 \times 2 = 38$

2 b. $26 - 7 \times 2 = 12$

3 a. $24 - 17 - 6 = 1$

3 b. $24 - 17 - 6 = 13$

4 a. $3 \times 6 + 13 = 57$

4 b. $3 \times 6 + 13 = 31$

Make up other parentheses puzzles below.

5 a. _____

5 b. _____

6 a. _____

6 b. _____

Try This

- 7.** Dalia made 8 party bags for her birthday party. Each bag contained 4 small gifts for her friends. When Denise said that she could come, Dalia had to make one more bag with 4 gifts. How many small gifts did Dalia need to fill her bags?

Walter wrote this number model: $8 \times (4 + 4) = 64$

Explain Walter's mistake.

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Basketball Math

**Family Note**

We have been using points scored in basketball to illustrate the use of parentheses in number models. Work with your child to find various combinations of 3-point, 2-point, and 1-point baskets that add up to 15 points. Ask your child to explain what the parentheses in the number models tell you about how to find the answers.

Please return this Home Link to school tomorrow.



Tell someone at home how basketball players can shoot baskets worth 3 points, 2 points, and 1 point. Find different ways a player can score 15 points.

Scoring 15 Basketball Points

3 points	2 points	1 point	Number Models
3	2	2	$(3 \times 3) + (2 \times 2) + (2 \times 1) = 15$

Practice

Solve. Show your work.

1.
$$\begin{array}{r} 274 \\ - 88 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 576 \\ - 67 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 711 \\ - 687 \\ \hline \end{array}$$

Unit

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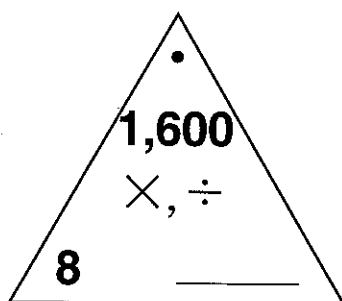
Extended Facts on Triangles


Family Note

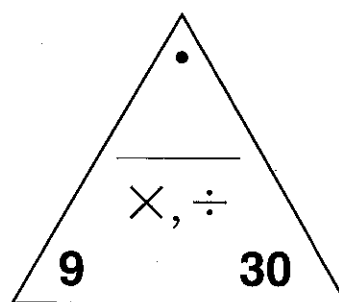
Today the class learned that if you know a basic multiplication fact, such as $4 \times 6 = 24$, you can get the answer to an extended multiplication fact like 40×6 or 4×600 . The same approach works for extended division facts like $120 \div 3$ or $1,500 \div 5$. The extended Fact Triangles on this page work the same way as the basic Fact Triangles.

Please return this Home Link to school tomorrow.

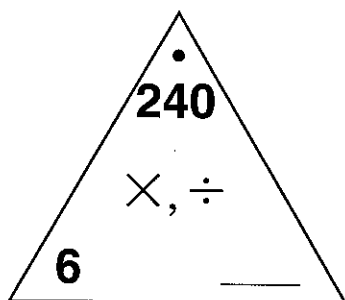
Fill in the extended Fact Triangles. Write the fact families.

1.


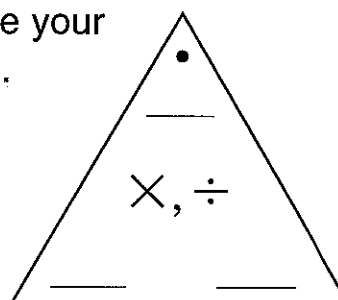
$$\begin{array}{l} ______ \times ______ = ______ \\ ______ \times ______ = ______ \\ ______ \div ______ = ______ \\ ______ \div ______ = ______ \end{array}$$

2.


$$\begin{array}{l} ______ \times ______ = ______ \\ ______ \times ______ = ______ \\ ______ \div ______ = ______ \\ ______ \div ______ = ______ \end{array}$$

3.


$$\begin{array}{l} ______ \times ______ = ______ \\ ______ \times ______ = ______ \\ ______ \div ______ = ______ \\ ______ \div ______ = ______ \end{array}$$

4. Write your own.


$$\begin{array}{l} ______ \times ______ = ______ \\ ______ \times ______ = ______ \\ ______ \div ______ = ______ \\ ______ \div ______ = ______ \end{array}$$

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Estimation

**Family Note**

Today we solved problems by making estimates. We emphasized that it is not always necessary to find the exact answer to a problem. For example, when you go to the store, you can estimate whether you have enough money to pay for the items you want to purchase. In most cases, it is not necessary to find the exact cost until you pay for your items.

Please return this Home Link to school tomorrow.



For each problem, first estimate whether the sum is greater than 500 or less than 500; then circle the correct comparison. Next give an exact result only to those problems with sums greater than 500.

a. $180 + 37$ >500 <500 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Answer</div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>	b. $1,358 + 392$ >500 <500 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Answer</div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>	c. $742 + 509$ >500 <500 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Answer</div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>
d. $118 + 292$ >500 <500 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Answer</div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>	e. $226 + 248$ >500 <500 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Answer</div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>	f. $377 + 168$ >500 <500 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Answer</div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>
g. $298 + 316$ >500 <500 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Answer</div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>	h. $195 + 188$ >500 <500 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Answer</div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>	i. $313 + 209$ >500 <500 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Answer</div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>

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7•8**A Multiplication Puzzle**

Family Note Practice finding products like 4×70 , 900×5 , and 30×50 with your child before he or she works the two puzzles.

Please return this Home Link to school tomorrow.

Work with someone at home.

- Find each product below (for Problems 5a through 5i).
- Record each product in the box labeled with the letter of the problem. For example, write the product for Problem **a** in Box **a**.
- Add the numbers in each row. Write the sum next to the row.
- Add these sums and write the answer in the Total box.
- The number in the Total box should equal $3 \times 3,000$.

a. 30×40

b. 20×70

c. 20×20

d. 10×80

e. 40×50

f. 20×10

g. 4×500

h. $10 \times 10 \times 10$

i. $10,000 \times 0$

a	+	b	+	c
d	+	e	+	f
g	+	h	+	i

= _____

= _____

= _____

Total

Try This

- 6.** Make a puzzle so the number in the Total box is 500.

a	+	b
c	+	d

= _____

= _____

a. _____ **b.** _____

c. _____ **d.** _____

Total

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Mystery Numbers

**Family Note**

Help your child find each missing number by using all the clues. Then help your child create more clues for two other mystery numbers.

Please return this Home Link to school tomorrow.

Find each missing number. Here are your clues.

Greater Than	Less Than	More Clues	Mystery Number
20	101	a 3-digit number	
197	200	any odd number	
67	80	has a zero in the ones place	
40	50	has the same digit in the tens place and the ones place	
917	1,072	has the same digit in the ones, tens, and hundreds places; has 4 digits	
996	1,015	a 3-digit even number	

Make up mystery-number puzzles. Write some clues and ask someone to find the numbers.

Greater Than	Less Than	More Clues	Mystery Number