

Unit 9

Family Letter

Reveal
MATH

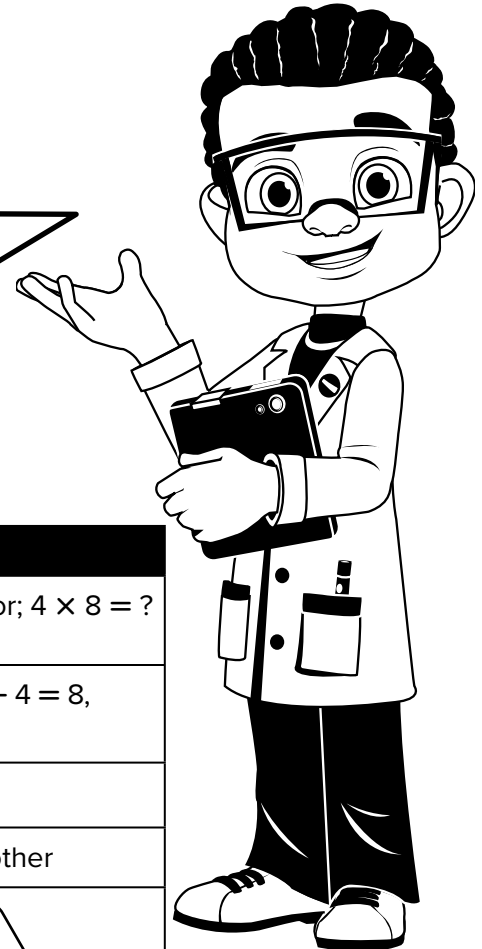
Dear Family,

In this Unit, *Use Multiplication to Divide*, your child will learn division facts 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. Your child will learn how to use multiplication to recall division facts.

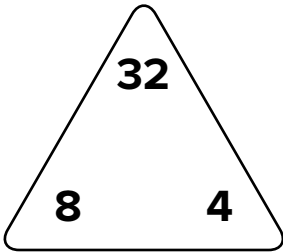
STEM Career Kid for this Module

Hi, I'm Malik.

I want to be a Photonics engineer. I will use math in my job when I determine the number of lasers I need for a show. I'll show students how I will use strategies and properties of multiplication and division in my work.



What math terms will your child use?

Term	Student Understanding
unknown	a missing number, or the number to be solved for; $4 \times 8 = ?$ or $32 \div 8 = ?$; ? is the unknown
dividend	the number being divided into equal groups; $32 \div 4 = 8$, 32 is the dividend
divisor	the number that the dividend is divided by
quotient	the answer when one number is divided by another
fact triangle	a representation containing three numbers that can be used to write four related equations 

What can your child do at home?

Help your child develop fluency in recalling division facts. Write three numbers on a fact triangle. For example, write 32, 4 and 8 on a fact triangle. Then have your child write all related facts, $4 \times 8 = 32$, $8 \times 4 = 32$, $32 \div 4 = 8$, and $32 \div 8 = 4$.



What Will Students Learn in This Unit?

Using Multiplication to Recall Division Facts

Your child will use his or her knowledge of the relationship between multiplication and division to use related multiplication facts to recall the quotient in a division problem.

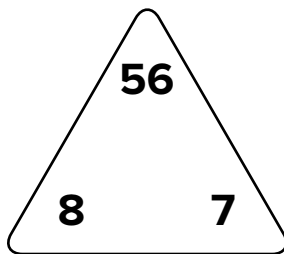
Examples:

$$24 \div 3 = ? \quad ? \times 3 = 24 \quad 8 \times 3 = 24 \quad 24 \div 3 = 8$$

Relating Multiplication and Division with Fact Triangles

Your child will explore using a fact triangle to determine related multiplication and division facts. The following fact triangle can be used to identify the four related facts associated with 56, 8, and 7.

Examples:



$$7 \times 8 = 56$$

$$8 \times 7 = 56$$

$$56 \div 8 = 7$$

$$56 \div 7 = 8$$

Using a Multiplication Fact Table

Your child will be using a multiplication fact table to determine a quotient by finding related multiplication facts on the multiplication fact table. Students will find the product in a row and column. Then use the factor labels in the row or column to determine the unknown.

Example:

$$45 \div 9 = ?$$

$$9 \times ? = 45$$

$$9 \times 5 = 45$$

$$45 \div 9 = 5$$

$\times$	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100