3rd Grade Math

Module 3: Multiplication and Division with Units of 0, 1, 6-9, and Multiples of 10

Math Parent Letter

This document gives parents and students a better understanding of the Eureka math concepts that are taught in the classroom. Module 3 of Eureka Math covers Multiplication and Division with Units of 0, 1, 6-9 and Multiples of 10. This newsletter will discuss Module 3, Topic E.

Topic E. Analysis of Patterns and Problem Solving Including Units of 0 and 1

Multiplication Table

Multiplication

0	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

factor x factor = product (multiple)

OBJECTIVE OF TOPIC E

1. Reason about and explain arithmetic patterns using units of 0 and 1 as they relate to multiplication and division.
2. Identify patterns in multiplication and division facts using the multiplication table.
3. Solve two-step word problems involving all four operations and assess the reasonableness of solutions.

Focus Area– Topic E

Analysis of Patterns and Problem Solving Including Units of 0 and 1

In **Lesson 16**, students use patterns to understand:

$$n \times 0 = 0 \quad \text{and} \quad n \times 1 = n$$

they will also understand that when dividing 0 by another number results in 0 but when dividing a number by 0 the answer is undefined.

In **Lesson 17**, students use a multiplication table to explore patterns of multiplication. They will recognize the patterns of particular factors and make connections to multiplication and division.

In **Lesson 18**, students apply the tools, representation, and concepts they have learned to solve two-step word problems using all four operations. (+, -, x, ÷)

They will also use the rounding skills learned in prior lessons to assess the reasonableness of the answers.

Troy has $105 in the bank. He earns the same amount of money each week for 7 weeks and puts this in money in the bank also. Now Troy has $273 in the bank. How much does Troy earn each week?

How much money did Troy put in the bank in 7 weeks?

$$273 - 105 = m \qquad m = 168$$

w = the number of dollars earned each week

$$168 \div 7 = w \qquad w = \$24$$

Troy earns $24 a week,

Tammy does homework for 43 minutes. She then does 7 chores. Each chore took 4 minutes. How many minutes does it take for Tammy to finish all of her chores and her homework?

How long does it take to complete chores?

$$7 \times 4 = c \qquad c = 28$$

How many minutes total?

$$43 + 28 = t \qquad t = 71 \text{ minutes}$$