

Unit 2 Module 3 Session 4
Problem String- Ten Facts and More
Problems and Investigations- Multiplication Table, Part 2

Getting Ready-

- **TM** T2 Grid Paper
- SB 57 Multiplication Table
- Student Math Journals
- Green, Blue, Purple, and Light Blue Colored Pencils (class set)

VOCABULARY

Equation

Commutative property of multiplication

Multiple

Product

Factor



- Interpret products of whole numbers
- Multiply using the commutative property
- Fluently multiply with products to 100 using strategies
- Identify patterns among multiplication facts and explain them using properties of operations

JOURNALS PLEASE



Problem String: Tens Facts and More
Today's Date:

1) 4×10

Sample Strategies

$$2) \quad 4 \times 5$$

Sample Strategies

3) 4×6

Sample Strategies &

$$4) \quad 4 \times 9$$

Sample Strategies

5) 7x10

Sample Strategies

6) 7x5

Sample Strategies

7) 7x6

Sample Strategies

8) 7x9

Sample Strategies

WORKBOOK PAGE 57 PLEASE



We will color the
Half Ten facts
(x5) **green**



Multiplication Table

x	0	1	2	3	4	5	6	7	8	9	10
0	0 × 0	0 × 1	0 × 2	0 × 3	0 × 4	0 × 5	0 × 6	0 × 7	0 × 8	0 × 9	0 × 10
1	0	0	0	0	0	0	0	0	0	0	0
2	2 × 0	2 × 1	2 × 2	2 × 3	2 × 4	2 × 5	2 × 6	2 × 7	2 × 8	2 × 9	2 × 10
3	3 × 0	3 × 1	3 × 2	3 × 3	3 × 4	3 × 5	3 × 6	3 × 7	3 × 8	3 × 9	3 × 10
4	4 × 0	4 × 1	4 × 2	4 × 3	4 × 4	4 × 5	4 × 6	4 × 7	4 × 8	4 × 9	4 × 10
5	5 × 0	5 × 1	5 × 2	5 × 3	5 × 4	5 × 5	5 × 6	5 × 7	5 × 8	5 × 9	5 × 10
6	6 × 0	6 × 1	6 × 2	6 × 3	6 × 4	6 × 5	6 × 6	6 × 7	6 × 8	6 × 9	6 × 10
7	7 × 0	7 × 1	7 × 2	7 × 3	7 × 4	7 × 5	7 × 6	7 × 7	7 × 8	7 × 9	7 × 10
8	8 × 0	8 × 1	8 × 2	8 × 3	8 × 4	8 × 5	8 × 6	8 × 7	8 × 8	8 × 9	8 × 10
9	9 × 0	9 × 1	9 × 2	9 × 3	9 × 4	9 × 5	9 × 6	9 × 7	9 × 8	9 × 9	9 × 10
10	10 × 0	10 × 1	10 × 2	10 × 3	10 × 4	10 × 5	10 × 6	10 × 7	10 × 8	10 × 9	10 × 10

- ☐ Zero facts (× 0)
- ☐ Ones facts (× 1)
- ☒ Doubles facts (× 2)
- ☒ Doubles Plus One Set facts (× 3)
- ☒ Double-Doubles facts (× 4)
- ☐ Half-Tens facts (× 5)
- ☐ Half-Tens Plus One Set facts (× 6)
- ☐ Double-Double-Doubles facts (× 8)
- ☐ Tens Minus One Set facts (× 9)
- ☐ Tens facts (× 10)

We will color the
Half Tens facts
($\times 5$) **green**



Multiplication Table

\times	0	1	2	3	4	5	6	7	8	9	10
0	0×0	0×1	0×2	0×3	0×4	0×5	0×6	0×7	0×8	0×9	0×10
1	0	0	0	0	0	0	0	0	0	0	0
2	1×0	1×1	1×2	1×3	1×4	1×5	1×6	1×7	1×8	1×9	1×10
3	0	1	2	3	4	5	6	7	8	9	10
4	2×0	2×1	2×2	2×3	2×4	2×5	2×6	2×7	2×8	2×9	2×10
5	0	2	4	6	8	10	12	14	16	18	20
6	3×0	3×1	3×2	3×3	3×4	3×5	3×6	3×7	3×8	3×9	3×10
7	0	3	6	9	12	15	18	21	24	27	30
8	4×0	4×1	4×2	4×3	4×4	4×5	4×6	4×7	4×8	4×9	4×10
9	0	4	8	12	16	20	24	28	32	36	40
10	5×0	5×1	5×2	5×3	5×4	5×5	5×6	5×7	5×8	5×9	5×10
11	0	5	10	15	20	25	30	35	40	45	50
12	6×0	6×1	6×2	6×3	6×4	6×5	6×6	6×7	6×8	6×9	6×10
13	0	6	12	18	24	30	36	42	48	54	60
14	7×0	7×1	7×2	7×3	7×4	7×5	7×6	7×7	7×8	7×9	7×10
15	0	7	14	21	28	35	42	49	56	63	70
16	8×0	8×1	8×2	8×3	8×4	8×5	8×6	8×7	8×8	8×9	8×10
17	0	8	16	24	32	40	48	56	64	72	80
18	9×0	9×1	9×2	9×3	9×4	9×5	9×6	9×7	9×8	9×9	9×10
19	0	9	18	27	36	45	54	63	72	81	90
20	10×0	10×1	10×2	10×3	10×4	10×5	10×6	10×7	10×8	10×9	10×10
21	0	10	20	30	40	50	60	70	80	90	100

We will color the
Half Tens Plus
One facts
($\times 6$) **light blue**

- ☐ Zero facts ($\times 0$)
- ☐ Ones facts ($\times 1$)
- ☐ Doubles facts ($\times 2$)
- ☐ Doubles Plus One Set facts ($\times 3$)
- ☐ Double-Doubles facts ($\times 4$)
- ☐ Half-Tens facts ($\times 5$)
- ☐ Half-Tens Plus One Set facts ($\times 6$)
- ☐ Double-Double-Doubles facts ($\times 8$)
- ☐ Tens Minus One Set facts ($\times 9$)
- ☐ Tens facts ($\times 10$)

We will color the
Half Tens Plus
One facts
(x6) **light blue**

We will color the
Tens Minus One
fact
(x9) **purple**



Multiplication Table

x	0	1	2	3	4	5	6	7	8	9	10
0	0×0	0×1	0×2	0×3	0×4	0×5	0×6	0×7	0×8	0×9	0×10
1	0	0	0	0	0	0	0	0	0	0	0
2	2×0	2×1	2×2	2×3	2×4	2×5	2×6	2×7	2×8	2×9	2×10
3	3×0	3×1	3×2	3×3	3×4	3×5	3×6	3×7	3×8	3×9	3×10
4	4×0	4×1	4×2	4×3	4×4	4×5	4×6	4×7	4×8	4×9	4×10
5	5×0	5×1	5×2	5×3	5×4	5×5	5×6	5×7	5×8	5×9	5×10
6	6×0	6×1	6×2	6×3	6×4	6×5	6×6	6×7	6×8	6×9	6×10
7	7×0	7×1	7×2	7×3	7×4	7×5	7×6	7×7	7×8	7×9	7×10
8	8×0	8×1	8×2	8×3	8×4	8×5	8×6	8×7	8×8	8×9	8×10
9	9×0	9×1	9×2	9×3	9×4	9×5	9×6	9×7	9×8	9×9	9×10
10	10×0	10×1	10×2	10×3	10×4	10×5	10×6	10×7	10×8	10×9	10×10

- ☐ Zero facts (× 0)
- ☐ Ones facts (× 1)
- ☐ Doubles facts (× 2)
- ☐ Doubles Plus One Set facts (× 3)
- ☐ Double-Doubles facts (× 4)
- ☐ Half-Tens facts (× 5)
- ☐ Half-Tens Plus One Set facts (× 6)
- ☐ Double-Double-Doubles facts (× 8)
- ☐ Tens Minus One Set facts (× 9)
- ☐ Tens facts (× 10)

We will color the
Tens Minus One
facts
($\times 9$) **purple**

We will color the
Tens facts
($\times 10$) **blue**



Multiplication Table

\times	0	1	2	3	4	5	6	7	8	9	10
0	0×0	0×1	0×2	0×3	0×4	0×5	0×6	0×7	0×8	0×9	0×10
1	0	1	2	3	4	5	6	7	8	9	10
2	2×0	2×1	2×2	2×3	2×4	2×5	2×6	2×7	2×8	2×9	2×10
3	3×0	3×1	3×2	3×3	3×4	3×5	3×6	3×7	3×8	3×9	3×10
4	4×0	4×1	4×2	4×3	4×4	4×5	4×6	4×7	4×8	4×9	4×10
5	5×0	5×1	5×2	5×3	5×4	5×5	5×6	5×7	5×8	5×9	5×10
6	6×0	6×1	6×2	6×3	6×4	6×5	6×6	6×7	6×8	6×9	6×10
7	7×0	7×1	7×2	7×3	7×4	7×5	7×6	7×7	7×8	7×9	7×10
8	8×0	8×1	8×2	8×3	8×4	8×5	8×6	8×7	8×8	8×9	8×10
9	9×0	9×1	9×2	9×3	9×4	9×5	9×6	9×7	9×8	9×9	9×10
10	10×0	10×1	10×2	10×3	10×4	10×5	10×6	10×7	10×8	10×9	10×10

- ☐ Zero facts ($\times 0$)
- ☐ Ones facts ($\times 1$)
- ☐ Doubles facts ($\times 2$)
- ☐ Doubles Plus One Set facts ($\times 3$)
- ☐ Double-Doubles facts ($\times 4$)
- ☐ Half-Tens facts ($\times 5$)
- ☐ Half-Tens Plus One Set facts ($\times 6$)
- ☐ Double-Double-Doubles facts ($\times 8$)
- ☐ Tens Minus One Set facts ($\times 9$)
- ☐ Tens facts ($\times 10$)

We will color the
Tens facts
(x9) **blue**



Multiplication Table

×	0	1	2	3	4	5	6	7	8	9	10
0	0 × 0	0 × 1	0 × 2	0 × 3	0 × 4	0 × 5	0 × 6	0 × 7	0 × 8	0 × 9	0 × 10
1	1 × 0	1 × 1	1 × 2	1 × 3	1 × 4	1 × 5	1 × 6	1 × 7	1 × 8	1 × 9	1 × 10
2	2 × 0	2 × 1	2 × 2	2 × 3	2 × 4	2 × 5	2 × 6	2 × 7	2 × 8	2 × 9	2 × 10
3	3 × 0	3 × 1	3 × 2	3 × 3	3 × 4	3 × 5	3 × 6	3 × 7	3 × 8	3 × 9	3 × 10
4	4 × 0	4 × 1	4 × 2	4 × 3	4 × 4	4 × 5	4 × 6	4 × 7	4 × 8	4 × 9	4 × 10
5	5 × 0	5 × 1	5 × 2	5 × 3	5 × 4	5 × 5	5 × 6	5 × 7	5 × 8	5 × 9	5 × 10
6	6 × 0	6 × 1	6 × 2	6 × 3	6 × 4	6 × 5	6 × 6	6 × 7	6 × 8	6 × 9	6 × 10
7	7 × 0	7 × 1	7 × 2	7 × 3	7 × 4	7 × 5	7 × 6	7 × 7	7 × 8	7 × 9	7 × 10
8	8 × 0	8 × 1	8 × 2	8 × 3	8 × 4	8 × 5	8 × 6	8 × 7	8 × 8	8 × 9	8 × 10
9	9 × 0	9 × 1	9 × 2	9 × 3	9 × 4	9 × 5	9 × 6	9 × 7	9 × 8	9 × 9	9 × 10
10	10 × 0	10 × 1	10 × 2	10 × 3	10 × 4	10 × 5	10 × 6	10 × 7	10 × 8	10 × 9	10 × 10

- Zero facts ($\times 0$)
- Ones facts ($\times 1$)
- Doubles facts ($\times 2$)
- Doubles Plus One Set facts ($\times 3$)
- Double-Doubles facts ($\times 4$)
- Half-Tens facts ($\times 5$)
- Half-Tens Plus One Set facts ($\times 6$)
- Double-Double-Doubles facts ($\times 8$)
- Tens Minus One Set facts ($\times 9$)
- Tens facts ($\times 10$)



Multiplication Table

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

- Zero facts ($\times 0$)
- Ones facts ($\times 1$)
- Doubles facts ($\times 2$)
- Doubles Plus One Set facts ($\times 3$)
- Double-Doubles facts ($\times 4$)
- Half-Tens facts ($\times 5$)
- Half-Tens Plus One Set facts ($\times 6$)
- Double-Double-Doubles facts ($\times 8$)
- Tens Minus One Set facts ($\times 9$)
- Tens facts ($\times 10$)

Work Places

1F Rabbit Tracks

1G Target One Hundred

1H Anything But Five

2A Loops and Groups

2B Frog Jump Multiplication

2C Cover Up

Daily Practice

SB 62 Multiplication Patterns