

4. [÷ Whole Numbers to 12]

Skill 4.1 Dividing by whole numbers from 1 to 12 using a multiplication table.

MMYellow 11 22 33 44
MMRed 11 22 33 44

Division forms patterns.

Division and multiplication are inverse operations.
(Division undoes multiplication)

Example: If $7 \times 8 = 8 \times 7 = 56$
then $56 \div 8 = 7$
or $56 \div 7 = 8$

×	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

Q.

	56	7	14	35	21	42	28	49	70	63
÷ 7										

A.

	56	7	14	35	21	42	28	49	70	63
÷ 7	8	1	2	5	3	6	4	7	10	9

$56 \div 7 = ?$ How many 7's go into 56?

Reword the division by turning it into a multiplication.

Ask: "7 multiplied by what number makes 56?" ($7 \times ? = 56$)

Answer: Using the multiplication table

$$7 \times 8 = 56$$

$$\text{So } 56 \div 7 = 8$$

a)

	28	20	8	4	16	12	36	24	32	40
÷ 4	7									

b)

	80	8	56	24	48	32	72	40	16	64
÷ 8	10									

Skill 4.2 Dividing whole numbers from 1 to 12 using repetitive subtraction.

MMYellow 1 1 2 2 3 3 4 4
MMRed 1 1 2 2 3 3 4 4

Division is the same as repeated subtractions.

Example: $56 \div 7 = ?$ How many 7's go into 56?

OR If you have 56, how many times can you take away 7?

$$56 - \underbrace{7 - 7 - 7 - 7 - 7 - 7 - 7 - 7}_{8 \text{ times}} = 0$$

If you have 56 you can take 7 away, 8 times.

So, $56 \div 7 = 8$

Q.

	21	6	12	30	24	3	18	27	9	15
$\div 3$										

A.

	21	6	12	30	24	3	18	27	9	15
$\div 3$	7	2	4	10	8	1	6	9	3	5

How many 3's go into 21?

Reword the division by turning it into a subtraction.

Ask: "If you have 21, how many times can you take away 3?"

$$21 - \underbrace{3 - 3 - 3 - 3 - 3 - 3 - 3}_{7 \text{ times}} = 0$$

Answer: If you have 21 you can take 3 away, 7 times. So, $21 \div 3 = 7$

a)

	16	2	6	20	12	4	14	18	10	8
$\div 2$	8									

$$\Rightarrow 16 \div 2$$

$$\Rightarrow 16 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 = 0 \quad \text{Take 2 away 8 times.}$$

$$\text{So } 16 \div 2 = 8$$

b)

	18	54	63	27	9	36	90	72	45	81
$\div 9$	2									

c)

	15	40	25	35	50	5	30	45	20	10
$\div 5$	3									

d)

	56	70	14	35	21	49	7	28	42	63
$\div 7$	8									