

3rd Grade Mission I Notes

SKIP COUNTING/MULTIPLICATION FACTS

1	2	3	4	5	6
$1 \times 1 = 1$	$1 \times 2 = 2$	$1 \times 3 = 3$	$1 \times 4 = 4$	$1 \times 5 = 5$	$1 \times 6 = 6$
$2 \times 1 = 2$	$2 \times 2 = 4$	$2 \times 3 = 6$	$2 \times 4 = 8$	$2 \times 5 = 10$	$2 \times 6 = 12$
$3 \times 1 = 3$	$3 \times 2 = 6$	$3 \times 3 = 9$	$3 \times 4 = 12$	$3 \times 5 = 15$	$3 \times 6 = 18$
$4 \times 1 = 4$	$4 \times 2 = 8$	$4 \times 3 = 12$	$4 \times 4 = 16$	$4 \times 5 = 20$	$4 \times 6 = 24$
$5 \times 1 = 5$	$5 \times 2 = 10$	$5 \times 3 = 15$	$5 \times 4 = 20$	$5 \times 5 = 25$	$5 \times 6 = 30$
$6 \times 1 = 6$	$6 \times 2 = 12$	$6 \times 3 = 18$	$6 \times 4 = 24$	$6 \times 5 = 30$	$6 \times 6 = 36$
$7 \times 1 = 7$	$7 \times 2 = 14$	$7 \times 3 = 21$	$7 \times 4 = 28$	$7 \times 5 = 35$	$7 \times 6 = 42$
$8 \times 1 = 8$	$8 \times 2 = 16$	$8 \times 3 = 24$	$8 \times 4 = 32$	$8 \times 5 = 40$	$8 \times 6 = 48$
$9 \times 1 = 9$	$9 \times 2 = 18$	$9 \times 3 = 27$	$9 \times 4 = 36$	$9 \times 5 = 45$	$9 \times 6 = 54$
$10 \times 1 = 10$	$10 \times 2 = 20$	$10 \times 3 = 30$	$10 \times 4 = 40$	$10 \times 5 = 50$	$10 \times 6 = 60$
$11 \times 1 = 11$	$11 \times 2 = 22$	$11 \times 3 = 33$	$11 \times 4 = 44$	$11 \times 5 = 55$	$11 \times 6 = 66$
$12 \times 1 = 12$	$12 \times 2 = 24$	$12 \times 3 = 36$	$12 \times 4 = 48$	$12 \times 5 = 60$	$12 \times 6 = 72$

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

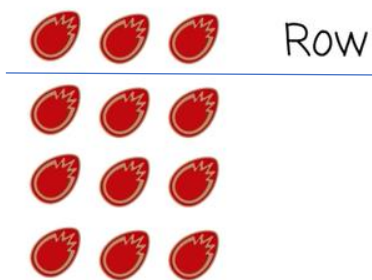
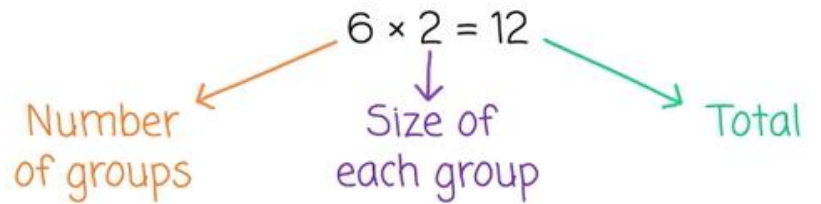


$$3 + 3 + 3 + 3 + 3 = 15$$
$$5 \text{ groups of three} = 15$$
$$5 \times 3 = 15$$

Multiplication Sentence



$$2 + 2 + 2 + 2 + 2 + 2 = 12$$
$$6 \text{ groups of two} = 12$$



Array



4 rows \times 3 size of each row

Factors

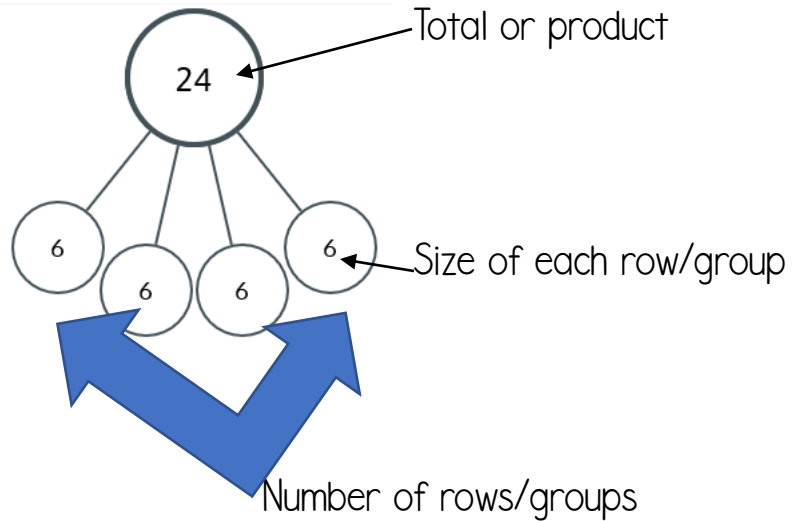
$$4 \times 6 = 24$$

Product



$$4 \times 6 = 24$$

Number of groups Size of each group Total



In an array, the number of groups is the same as the number of rows.

$$3 \times 5 = 15$$

Number of rows number in each row total number of items

Divide- means to share things equally

$$8 \div 2 = 4$$

Total number of groups size of each group



$$10 \div 2 = 5$$

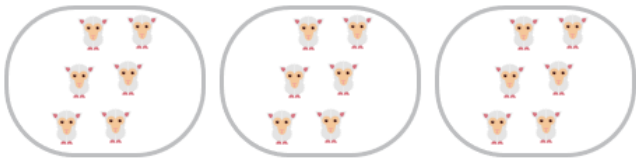
This total represents the size of each group.

$$10 \div 5 = 2$$

This total represents the number of groups.

Cynthia has 18 sheep on her family's farm. 6 sheep fit in each pen.

How many pens does Cynthia's family need for the 18 sheep? ◀▶



We divided 18 sheep into groups of 6 sheep, and got 3 groups.

Cynthia's family needs 3 pens.

$$18 \div 6 = 3$$

$$20 \div 4 = \underline{\quad}$$

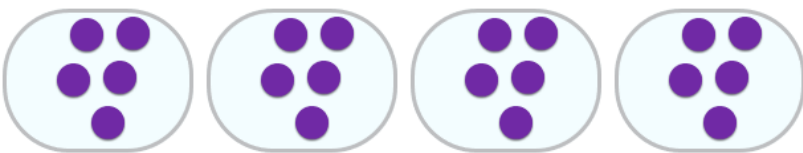
Divide 20 disks into groups of 4.



Into groups/rows of _____ - means to divide that number in each group/row.

$$20 \div 4 = \underline{\quad}$$

Divide 20 disks into 4 groups.



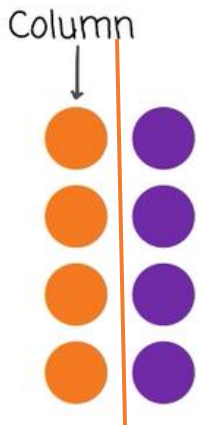
Into _____ groups/rows - means to create that many groups/rows.

$$20 \div 5 = 4$$

Quotient

(the answer to a division equation)

Kayla decorated her notebook with stickers. She arranged 21 stickers into rows of 3.



$$21 \div 3 = 7$$

$$7 \times 3 = 21$$



2 rows \times 6 columns = 12 total

Commutative property

When the total and factors stay the same numbers, but the factors switch places.

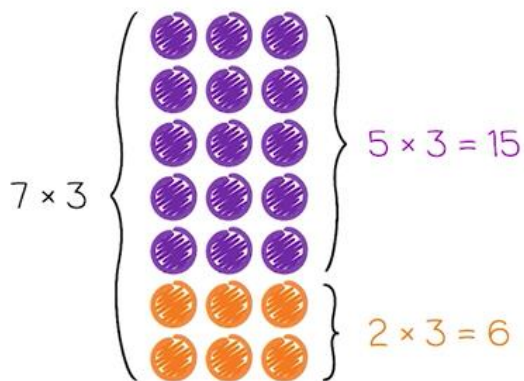
$$2 \times 6 = 12 \quad 6 \times 2 = 12$$

$$2 \times 6 = 6 \times 2$$



6 rows \times 2 columns = 12 total

$$7 \times 3 = ?$$

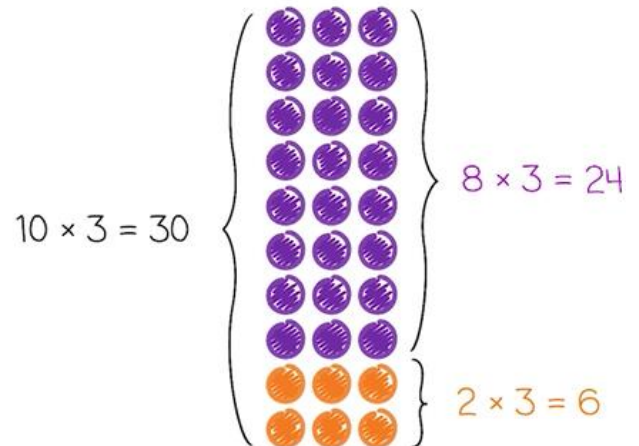


7 threes = 5 threes + 2 threes

$$7 \times 3 = 5 \times 3 + 2 \times 3$$

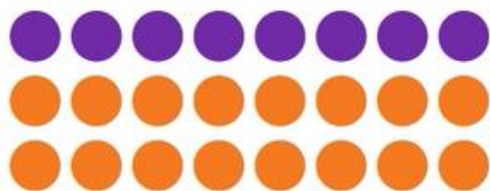
$$21 = 15 + 6$$

$$8 \times 3 = ?$$



10 threes - 2 threes = 8 threes

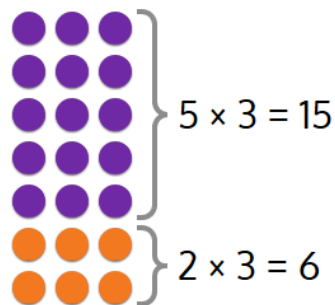
$$30 - 6 = 24$$



$$3 \times 8 = (1 \times 8) + (2 \times 8)$$

Whole

broken apart by rows



$$5 \times 3 = 15$$

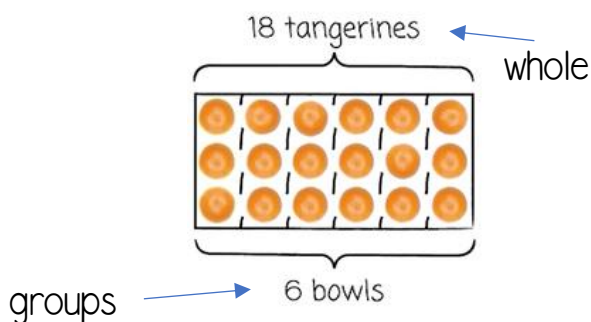
$$2 \times 3 = 6$$

$$(5 \times 3) + (2 \times 3) = 15 + 6$$

$$7 \times 3 = 15 + 6$$

$$7 \times 3 = 21$$

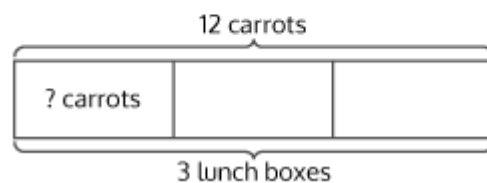
Ms. Lawrie wants to distribute 18 tangerines equally into 6 bowls.
How many tangerines will be in each bowl?



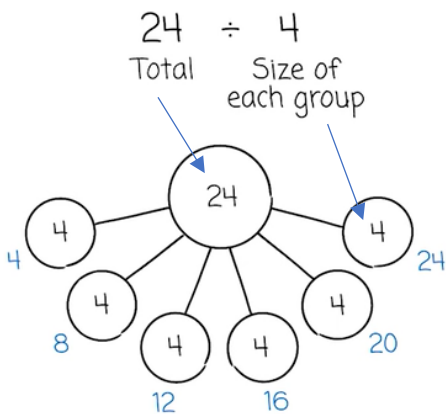
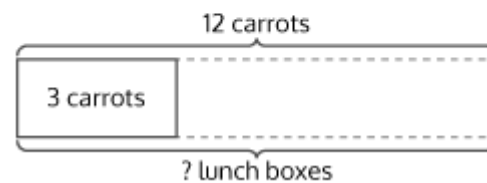
$$6 \times ? = 18$$

$$18 \div 6 = ?$$

Mr. Sawicki has 12 carrots. He divides them equally into 3 lunch boxes. How many carrots does he put in each lunch box?

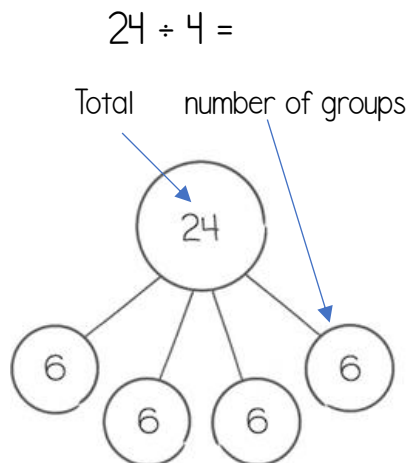


Mr. Sawicki has 12 carrots. He puts 3 carrots in each lunch box. How many lunch boxes does he pack?



6 groups of 4

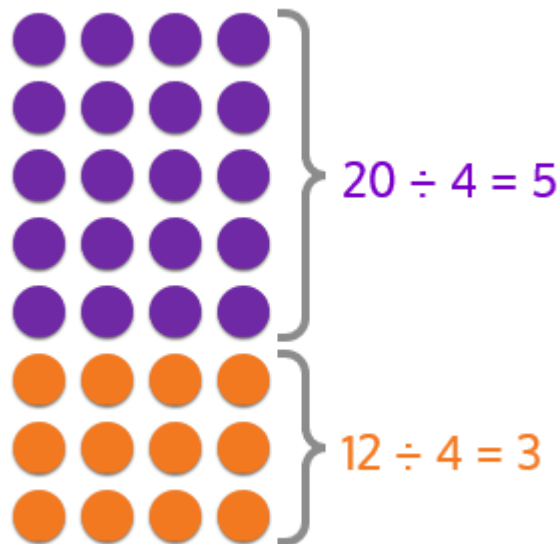
$$6 \times 4 = 24$$



4 groups of 6

$$4 \times 6 = 24$$

$$32 \div 4 = 8$$



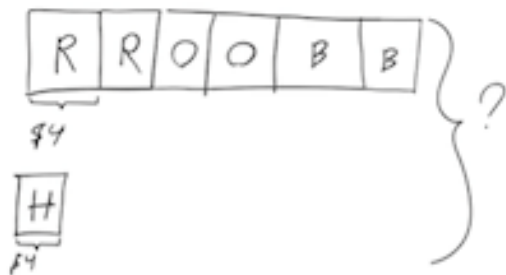
$$32 \div 4 = (20 \div 4) + (12 \div 4)$$

$$= 5 + 3$$

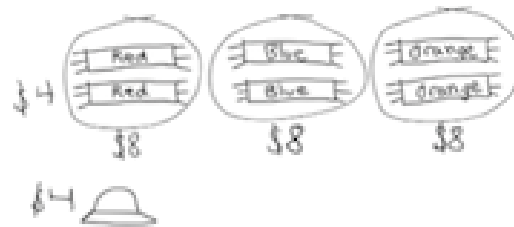
$$= 8$$

Red, orange, and blue scarves are on sale for \$4 each. Nina buys 2 scarves of each color. She also buys a hat that costs \$4.

How much does she spend altogether? 🗣️



OR



6 fours + 1 four = 7 fours

8, 16, 24, 28

$$7 \times 4 = \$28$$

Nina spends

\$28 altogether.

She spends

\$28

altogether!