1. Fill in the table. Use a question mark to show what you don't know.

		Total Number of Things	Number of Sets	Number in Each Set	Multiplication or Division Sentence
a)	20 people 4 vans	20	4	?	20 ÷ 4 = ?
b)	3 marbles in each jar 6 jars	?	6	3	6 × 3 = ?
c)	15 flowers 5 pots				
d)	4 chairs at each table 2 tables				
e)	20 flowers 4 in each row				
f)	6 seats in each row 2 rows				
g)	18 houses 9 houses on each block				
h)	15 chairs 3 rows				
i)	6 tents 3 campers in each tent				
j)	9 boxes 3 sea shells in each box				
k)	6 legs on each insect 42 legs				

2. Find the missing number in each part of Question 1.

The fact family for the multiplication sentence **3 × 5 = 15** is:

3 × 5 = 15	5 × 3 = 15	15 ÷ 3 = 5	15 ÷ 5 = 3

3. Complete the fact family for the given multiplication or division sentence.

a) 4 × 2 = 8

b) 5 × 6 = 30

c) 10 ÷ 2 = 5

_____

_____

_____

d) 12 ÷ 4 = 3

e) 9 × 3 = 27

f) 6 × 8 = 48

_____

_____

_____

4. Armand plants 24 trees in 3 rows. How many trees are in each row?

5. Alex plants 4 rows of trees with 7 in each row. How many trees did she plant?

6. A canoe can hold 3 people.

a) How many canoes are needed for 21 people?

b) How many people can go canoeing with 5 canoes?

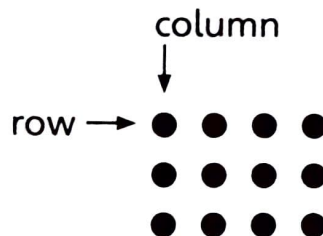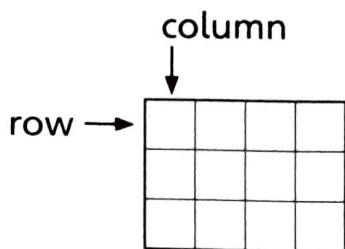**7.** You need 3 tickets to ride the roller coaster at the amusement park.

a) Mandy, Tom, and Jane want to ride the roller coaster. How many tickets will they need altogether?
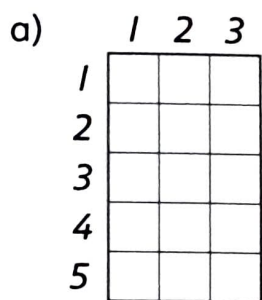
b) How many tickets are needed for 8 people?

BONUS ▶ Kim has 17 tickets. If she pays for herself and 4 of her friends, how many tickets will she have left?

NS3-60 Rows and Columns

> **REMINDER** ▶ An array has rows and columns of objects, like squares or dots.
>
> column   column
>
> row → [grid]   row → [dot array]

1. Number the rows and columns. Write the total number of small squares in the array.

a)   1   2   3

    1
    2
    3
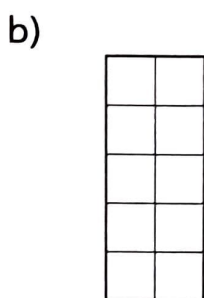   4
    5

    __5__ rows

    __3__ columns

total __5 × 3 = 15__
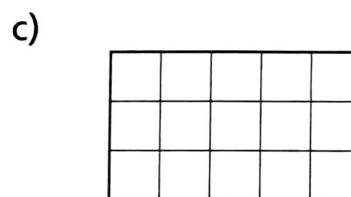
or __3 × 5 = 15__

b)

_____ rows

_____ columns

total _____

or _____

c)
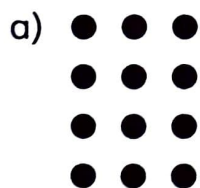
_____ rows

_____ columns

total _____

or _____

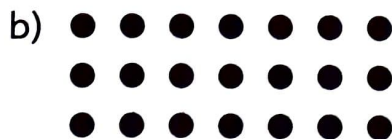2. Count the rows and columns. Write the total number of dots in the array.

a) [dot array]

    __4__ rows

    __3__ columns

total __4 × 3 = 12__
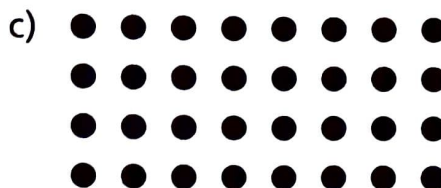
or __3 × 4 = 12__

b) [dot array]

_____ rows

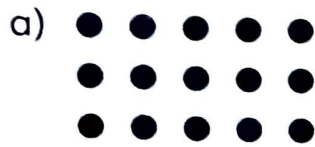_____ columns

total _____

or _____

c) [dot array]

_____ rows

_____ columns

total _____

or _____

3. Write a multiplication sentence for the total number of dots. Then write another multiplication sentence and two division sentences for the array.
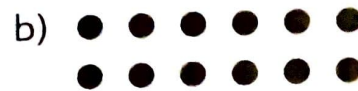
a)
● ● ● ● ●
● ● ● ● ●
● ● ● ● ●

    __3__ rows   __5__ columns

   total __$3 \times 5 = 15$__

         __$5 \times 3 = 15$__

         __$15 \div 5 = 3$__

         __$15 \div 3 = 5$__

b)
● ● ● ● ● ●
● ● ● ● ● ●

    _____ rows   _____ columns

   total _____

       _____

       _____

       _____

4. The table gives the number of rows and columns in arrays. Write two multiplication sentences and two division sentences for each array.

	Rows	Columns	Total	Sentences	
a)	5	2	10	$5 \times 2 = 10$ $2 \times 5 = 10$	$10 \div 5 = 2$ $10 \div 2 = 5$
b)	6	4	24		
c)	3	7	21		
d)	7	8	56		
e)	8	6	48		
f)	10	9	90		

5. The question mark (?) is the number we do not know. Write a sentence that gives the unknown.

	Rows	Columns	Total	Sentence
a)	3	5	?	? = 3 × 5
b)	?	6	18	? = 18 ÷ 6
c)	?	2	16	
d)	4	?	36	
e)	7	8	?	
f)	9	?	45	

6. Ken plants 8 rows of trees. He plants 3 trees in each row. How many trees does he plant? Draw an array of dots to show your answer.

7. Randi arranges 35 chairs in rows with 5 chairs in each row. How many rows of chairs does she make?

8. Avril plants 12 flowers in 3 rows. How many flowers are in each row?

9. Mona arranges 9 rows of beads with 7 beads in each row. How many beads are in her array?

BONUS ▶ John makes an array using dimes. He makes 2 rows with 4 dimes in each row.

    a) How many dimes does John use?

    b) If John has 14 dimes in 2 rows, how many dimes are in each row?

BONUS ▶ Marko plants 6 rows of trees with 4 in each row. Tom plants 7 rows of trees with 3 in each row. How many more trees does Marko plant?

BONUS ▶ Wendy arranges 36 stickers with 6 in each row. Raj arranges 49 stickers with 7 in each row. Who has more rows?