Name: _____ Mark: _____

8. Multiply with 3 Factors

A. Visual Learning

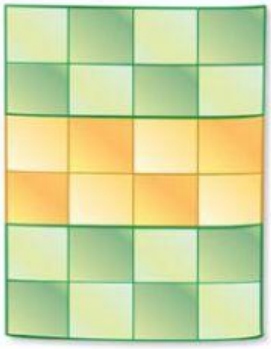
How can you multiply 3 numbers?

Tony is joining 3 sections of a quilt.

Each section has 2 rows with 4 squares in each row.

How many squares does he use?

Find $3 \times 2 \times 4$.



One way

Find 3×2 first.

$(3 \times 2) \times 4$

$6 \times 4 = 24$

6 rows, 4 squares in each row

He uses 24 squares in all.

Another way

Find 2×4 first.

$3 \times (2 \times 4)$

$3 \times 8 = 24$

You can change the grouping of the factors and the product will be the same.

3 sections, 8 squares in each section

He uses 24 squares in all.



Another Example

Find $4 \times 7 \times 2$.

$4 \times (7 \times 2) = 4 \times (2 \times 7)$ Change the order of the factors.

$= (4 \times 2) \times 7$ Change the grouping of the factors.

$= 8 \times 7$

$= 56$

B. Vocabulary

order: _____ factor: _____

grouping: _____ product: _____

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C. Independent Practice

*In **1** – **4**, fill in the blanks.*

1. $2 \times (4 \times 2) = (2 \times 4) \times$ _____

2. $(3 \times 4) \times 3 = 3 \times (____ \times 3)$

3. $2 \times (2 \times 3) = (2 \times 2) \times$ _____

4. $(3 \times 2) \times 4 = ____ \times (2 \times 4)$

*In **5** – **6**, find each product in two ways.*

5. $4 \times 2 \times 3$

1st way: Find 4×2 first.

$(4 \times 2) \times 3$

↓

_____ $\times 3 =$ _____

2nd way: Find 2×3 first.

$4 \times (2 \times 3)$

↓

$4 \times$ ____ = _____

6. $5 \times 2 \times 4$

1st way: Find 5×2 first.

$(5 \times 2) \times 4$

↓

_____ $\times 4 =$ _____

2nd way: Find 2×4 first.

$5 \times (2 \times 4)$

↓

$5 \times$ _____ = _____

7. There are 2 buildings. Each building has 5 floors.
There are 9 rooms on each floor.
How many rooms are there in 2 buildings?



• *Find?*	• *Complete a bar diagram.*	• *Write an equation and word answer.*
_____	_____	_____
_____	9 9 9 9 9	_____
• *Know?*	⇩ ⇩	_____
_____	1^{st} building 2^{nd} building	
_____		
_____		

LIVEWORKSHEETS