

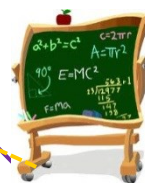


**Math**



# Content

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## Know the contents

The Gimnasio Virtual San Francisco Javier, presented through textbooks for primary education program and sequence of the mathematics content, enriched with several videos and additional topics.

With this text handling you acquire attitudes, skills, abilities and ideas that allow you to expand your worldview.

Your content are grouped into four units containing four sessions of topics and subtopics of several pages. Each topic begins with a title, a series of questions, whose purpose is to arouse your interest in the contents, you can use the questions at the end of a topic to find your learning.

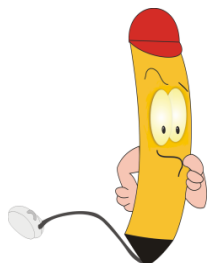
Find images related to the concepts and themes, videos, diagrams, concept maps with didactic sense.

<http://www.youtube.com/watch?v=IWQMEkQhWPK>

<http://www.youtube.com/watch?v=ZQOg7LE3UK8>

The virtualitos will help you travel through this adventure of knowledge.

### Let us search...



When you find this you will know that there are many unanswered questions, which you can use at the end of a topic to find what you have learned.



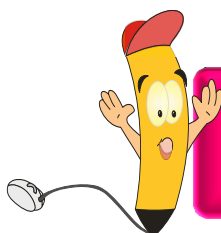
When you find this you will have to perform the activities for each topic or subtopic.



Art is part of your activities, giving a personal touch when you go to color. Now you are the artist!

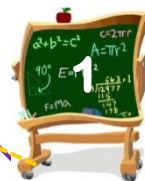


Virtualito invites you to learn more about the topic, research new things. It is interesting to know!



#### You know?

Find fun facts that invite you to learn about other related topics.





## Multiply by one-digit numbers

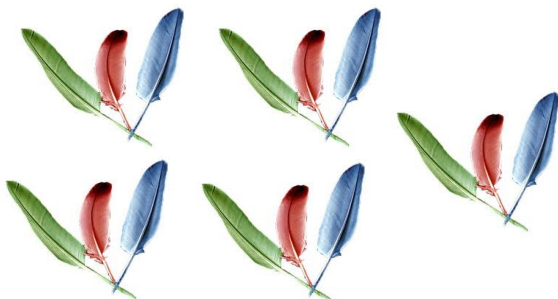
Multiplying equivalent to adding sets having the same number of elements.



$$4 \text{ sets of } 2 = 8$$

$$2 + 2 + 2 + 2 = 8$$

$$4 \times 2 = 8$$



$$5 \text{ sets of } 3 = 15$$

$$3 + 3 + 3 + 3 + 3 = 15$$

$$5 \times 3 = 15$$

### Multiply by 2 and 3

$1 \times 2 = \underline{\quad}$

$5 \times 2 = \underline{\quad}$

$3 \times 3 = \underline{\quad}$

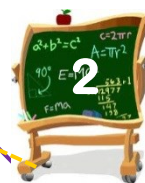
$7 \times 2 = \underline{\quad}$

$4 \times 3 = \underline{\quad}$

$9 \times 2 = \underline{\quad}$

$7 \times 3 = \underline{\quad}$

$8 \times 2 = \underline{\quad}$





# Unit 3

$$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$$

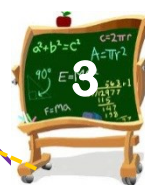
$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$$





## Multiply by 4 and for 5

$1 \times 4 = \underline{\quad}$

$2 \times 5 = \underline{\quad}$

$3 \times 5 = \underline{\quad}$

$2 \times 4 = \underline{\quad}$

$1 \times 5 = \underline{\quad}$

$8 \times 5 = \underline{\quad}$

$9 \times 4 = \underline{\quad}$

$9 \times 5 = \underline{\quad}$

$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$

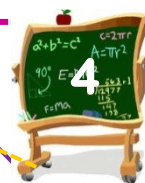
$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$$





## Multiplication properties



$$\begin{array}{r} 2 \\ \times 3 \\ \hline 6 \end{array}$$

2 → Factors  
3 → Factors  
6 → Product



$$\begin{array}{r} 3 \\ \times 2 \\ \hline 6 \end{array}$$

3 → Factors  
2 → Factors  
6 → Product

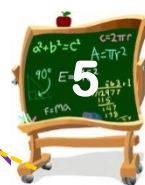
When 1 is one of the factors, the product is another factor.

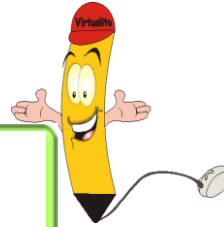
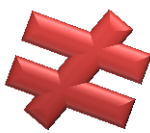


$$\begin{array}{r} 1 \\ \times 6 \\ \hline 6 \end{array}$$



$$\begin{array}{r} 6 \\ \times 1 \\ \hline 6 \end{array}$$





## Activity

1. Multiply:

$$\begin{array}{r} 1 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

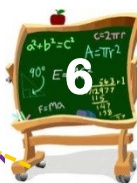
$$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$

When 0 is one of the factors, the product is zero.

$$\begin{array}{r} 0 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 0 \\ \hline \end{array}$$







## Multiply by 6 and for 7

$1 \times 6 = \underline{\quad}$

$2 \times 7 = \underline{\quad}$

$3 \times 7 = \underline{\quad}$

$4 \times 7 = \underline{\quad}$

$5 \times 6 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$1 \times 7 = \underline{\quad}$

$9 \times 6 = \underline{\quad}$

$$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$

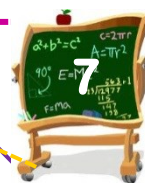
$$\begin{array}{r} 6 \\ \times 1 \\ \hline \end{array}$$

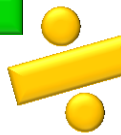
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$$





## Multiply by 8 and 9

$2 \times 8 = \underline{\quad}$

$1 \times 9 = \underline{\quad}$

$4 \times 8 = \underline{\quad}$

$2 \times 9 = \underline{\quad}$

$3 \times 9 = \underline{\quad}$

$5 \times 8 = \underline{\quad}$

$4 \times 9 = \underline{\quad}$

$1 \times 8 = \underline{\quad}$

$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

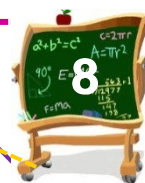
$$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$





## Find multiples

Products 3, 6, 9, 12 and 15 are **multiples of 3**.

Items 4, 8, 12, 16 and 20 are **multiples of 4**.

The product 12 is a common **multiple of 3 and 4**.

$1 \times 3 = 3$

$1 \times 4 = 4$

$2 \times 3 = 6$

$2 \times 4 = 8$

$3 \times 3 = 9$

$3 \times 4 = 12$

$4 \times 3 = 12$

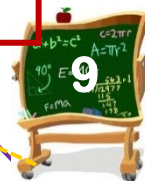
$4 \times 4 = 16$

$5 \times 3 = 15$

$5 \times 4 = 20$

Find the missing multiples.

2	2	4										
3	3	6		12		18				30		36
4	4				20				36			48
5	5							40			55	60
6	6	12				36				60		72
7	7					42			63			
8	8				40				72	80		
9		18		36					81			

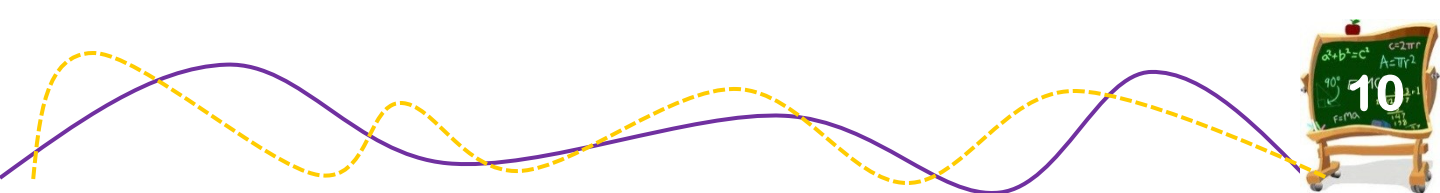




## Multiply and fill factors missing

Complete the following table of multiplication.

X	0	1	2	3	4	5	6	7	8	9
0										
1										
2										
3										
4										
5										
6								42		
7										
8										
9		18								





## Division by one-digit number

5 sets of 2 in 10  
 10 divided by 2 = 5  
 $10 \div 2 = 5$



4 sets of 3 = 12  
 12 divided by 3 = 4  
 $12 \div 3 = 4$

Divide:

$4 \div 2 = \underline{\quad}$

$16 \div 2 = \underline{\quad}$

$21 \div 3 = \underline{\quad}$

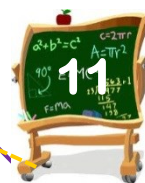
$6 \div 2 = \underline{\quad}$

$27 \div 3 = \underline{\quad}$

$15 \div 3 = \underline{\quad}$

$3 \div 3 = \underline{\quad}$

$12 \div 2 = \underline{\quad}$





## Divide by 4 and 5

$8 \div 4 = \underline{\quad}$

$28 \div 4 = \underline{\quad}$

$12 \div 4 = \underline{\quad}$

$20 \div 5 = \underline{\quad}$

$30 \div 5 = \underline{\quad}$

$5 \div 5 = \underline{\quad}$

$16 \div 4 = \underline{\quad}$

$10 \div 5 = \underline{\quad}$

$35 \div 5 = \underline{\quad}$

$36 \div 4 = \underline{\quad}$

$32 \overline{) 4}$

$4 \overline{) 4}$

$20 \overline{) 4}$

$45 \overline{) 5}$

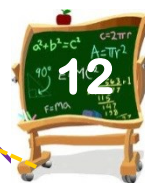
$24 \overline{) 4}$

$30 \overline{) 5}$

$10 \overline{) 5}$

$40 \overline{) 4}$

$35 \overline{) 5}$





## Division: inverse of multiplication

Multiplication factors help you to verify your division.



$$24 \div 4 = 6 \quad \text{because} \quad 6 \times 4 = 24$$



dividend



divisor



quotient



factor

Divide:

$$20 \div 5 = \square$$

$$32 \div 4 = \square$$

$$\square \times 5 = 20$$

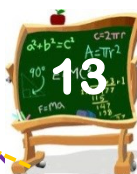
$$\square \times 4 = 32$$

$$\square \times 2 = 18$$

$$27 \div 3 = \square$$

$$18 \div 2 = \square$$

$$\square \times 3 = 27$$





## Divide by 6 and 7

$49 \div 7 = \underline{\quad}$

$54 \div 6 = \underline{\quad}$

$18 \div 6 = \underline{\quad}$

$63 \div 7 = \underline{\quad}$

$21 \div 7 = \underline{\quad}$

$24 \div 6 = \underline{\quad}$

$42 \div 6 = \underline{\quad}$

$56 \div 7 = \underline{\quad}$

$6 \div 6 = \underline{\quad}$

$35 \div 7 = \underline{\quad}$

$42 \overline{) 7}$

$56 \overline{) 7}$

$14 \overline{) 7}$

$36 \overline{) 6}$

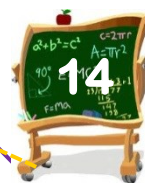
$63 \overline{) 7}$

$7 \overline{) 7}$

$49 \overline{) 7}$

$18 \overline{) 6}$

$30 \overline{) 6}$







## Divide by 8 and 9

$9 \div 9 = \underline{\quad}$

$18 \div 9 = \underline{\quad}$

$72 \div 9 = \underline{\quad}$

$24 \div 8 = \underline{\quad}$

$56 \div 8 = \underline{\quad}$

$32 \div 8 = \underline{\quad}$

$63 \div 9 = \underline{\quad}$

$45 \div 9 = \underline{\quad}$

$16 \div 8 = \underline{\quad}$

$54 \div 9 = \underline{\quad}$

$18 \overline{) 9}$

$36 \overline{) 9}$

$32 \overline{) 8}$

$48 \overline{) 8}$

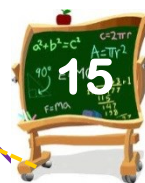
$72 \overline{) 9}$

$16 \overline{) 8}$

$27 \overline{) 9}$

$54 \overline{) 9}$

$81 \overline{) 9}$





## Find factors

$12 = 1 \times 12$

$18 = 3 \times 6$

$12 = 2 \times 6$

1, 2, 3, 4, 6 and 12 are **factors** of 12.

$12 = 3 \times 4$

1, 2, 3, 6, 9 and 18 are **factors** of 18.

$18 = 1 \times 18$

1, 2, 3 and 6 are **common factors** of 12 and 18.

$18 = 2 \times 9$

6

1	2	3	6
1	2		8

8

9

1		9	
---	--	---	--

10

1			10
---	--	--	----

15

1			15
---	--	--	----

35

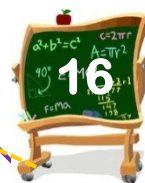
1			35
---	--	--	----

25

1		25	
---	--	----	--

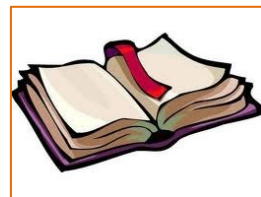
27

1			27
---	--	--	----





## Division with remainder



$$\begin{array}{r}
 13 \quad 3 \\
 -12 \quad 4 \\
 \hline
 1
 \end{array}$$

13 books  
 4 groups of 3  
 books  
 1 libro is remainder

Divide. Write the remainder. Check the result by means of multiplication. Then add the residue to the product.

$$9 \quad \underline{\quad} 2$$

$$44 \quad \underline{\quad} 8$$

$$46 \quad \underline{\quad} 7$$

$$14 \quad \underline{\quad} 4$$

$$37 \quad \underline{\quad} 4$$

$$67 \quad \underline{\quad} 8$$

