

MULTIPLICATION



SOL 4.4 a,b,d & 4.16 a,b

Vocabulary:

Whole number: a number without fractions that is equal to or greater than 1.

Multiplication: repeated addition

Associative property: the product stays the same when the grouping of factors is

changed

Equivalent: the same

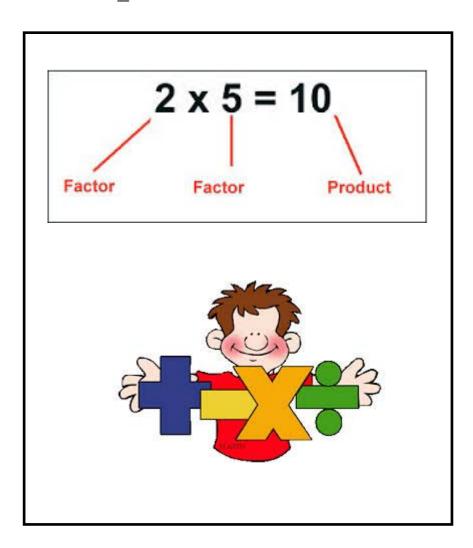
Factor: number that is multiplied with other numbers

Identity property: when the number 1 is multiplied with another number, that num-

ber stays the same

Number sentence: an equation using numbers and operation symbols

Multiplication Parts



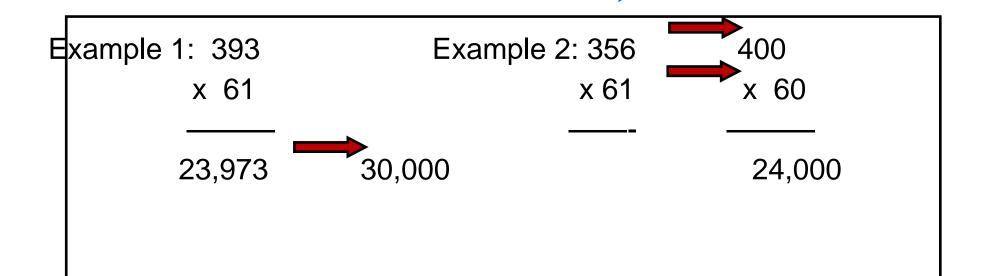
Watch out for the terms *closer to*, *between*, and *a little more than* in word problems indicating estimation.



Two ways to estimate:

- Multiply then round
- Round then multiply

Tip: When rounding first, round to the largest



HOW TO MULTIPLY 2 DIGIT BY 1 DIGIT

23 x 6

3x6=18
put down the 8
and carry the 1

¹23 x 6 8

2x6=12 12+1=13 Write down the 13 23 x 6 138

This is your answer

HOW TO MULTIPLY 3 DIGIT BY 1 DIGIT

235 x 6

put down the O

5x6=30 and carry the 3

> 235 1410

This is your answer! Pretty easy hey?

235 6 X

3×6=18 18+3=21 Put down the 1 and carry the 2 X

2x6=12 12+2=14 Put down the 14 and that is the answer

HOW TO MULTIPLY 2 DIGITS

BY 2 DIGITS

¹37 x 46 2 ⁴37 x 46 222

x 46 222 0 37 x 46 222 80

Begin by multiplying
the top by the number on
the bottom right side.
This is how!
Multiply 7 and 6.
Put down the 2
and carry the 4.

Multiply 3 and 6. DON'T forget to add the 4 that you carried! You have finished multiplying everything by 6.
Before this, we can cross out the number we have carried (the number 4 at the top).
We also have to add the magic '0' in the 'units' column of the next row of our answer lines.
DO NOT FORGET THIS!

Next you must multiply the top numbers by the number on the bottom left hand side. This is how! Multiply 7 and 4.

Multiply 7 and 4. Put down the 8 and carry the 2. Multiply 3 and 4. DON'T forget to add the 2 that you carried!

x 46 222 : + 1480 ♦

Now you need to add the two numbers together. Don't forget to work from right to left and carry when needed!

It should look like this!

HOW TO MULTIPLY

How To Multiply 3 Digit By 2 Digit

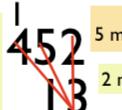
Numbers

Step I: Choose a 3 digit number and a 2 digit number

x |3

452

Step 2: Multiply the top number with the ones from the number below 4 multiply 3 is 12 but you kept 1 before so you need to add 1 with 12.So the answer is 13.



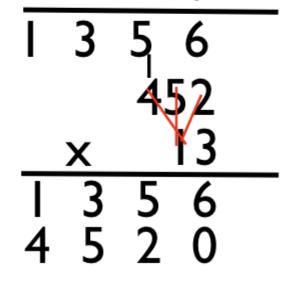
5 multiply 3 is 15

2 multiply 3 is 6

Step 3: You got 452 x 3.

Now you need to find 452 x

I. You need to put the zero below to hold the place.



Associative Property

ASSOCIATIVE PROPERTY

$$(3 X 2) X 4= 3 X (2 X 4)$$

$$6 \times (4 \times 3) = (6 \times 4) \times 3$$



ONLY THE PARENTHESES MOVE

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Key Words for Word Problems

