

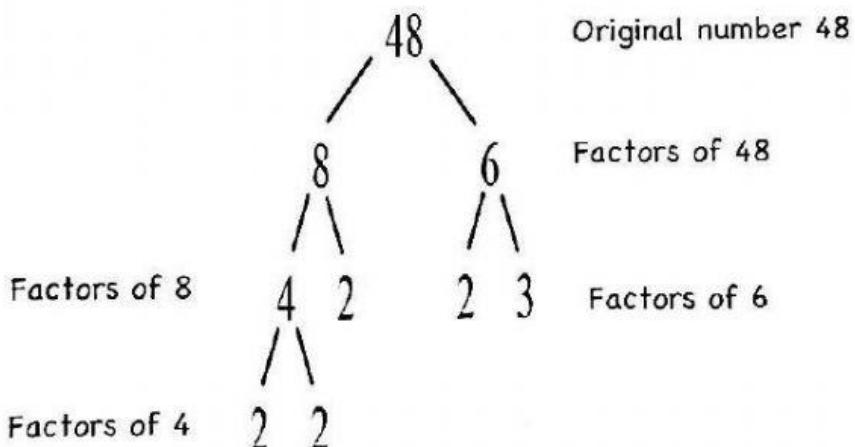
Name/Nombre: \_\_\_\_\_ Date/Fecha: \_\_\_\_\_

## Prime factors

- \* Prime factors of a number are the factors that are \_\_\_\_\_.
- \* Example:  $3 \times 4 = 12$ 
  - ❖ Both 3 and 4 are factors of 12.
  - ❖ 3 is a \_\_\_\_\_ factor of 12 because 3 is a prime number.
  - ❖ 4 is NOT a prime factor of 12 because 4 is NOT a prime number.

## Prime factorization tree

- ❖ Prime factorization tree is a \_\_\_\_\_ to find a list of a given number's prime factors.

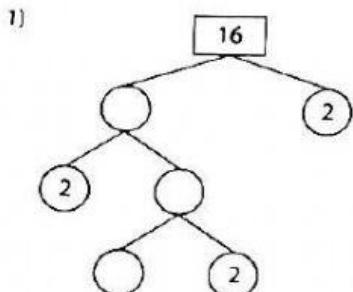


- ❖ Stop the process when we have found ALL the prime factors.
- ❖  $48 = 2 \times 2 \times 2 \times 2 \times 3$
- ❖ (or  $48 = 2^4 \times 3$ )

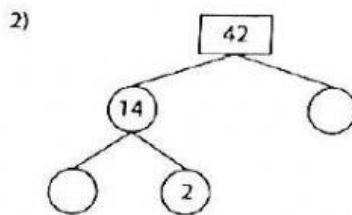
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## DO NOW!

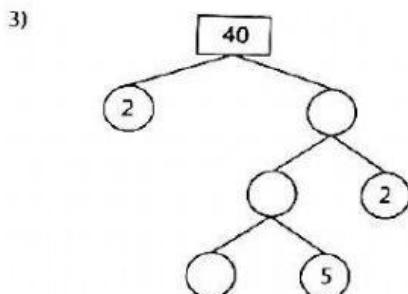
1. Complete the prime factor tree for each number.



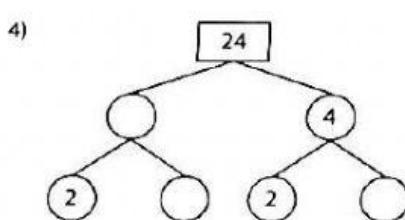
$$16 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$



$$42 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$



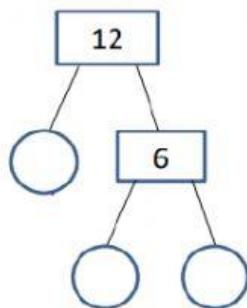
$$40 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$



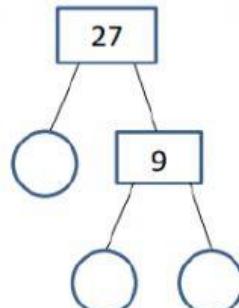
$$24 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

2. Draw a prime factor tree for each number.

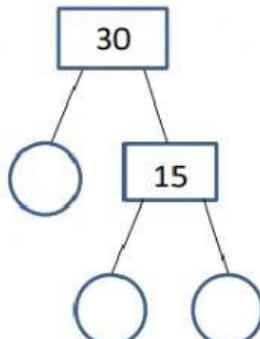
(1)  $12 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$



(2)  $27 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$



(3)  $30 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$



(4)  $28 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$

