

# 2.7 Learning Opportunity

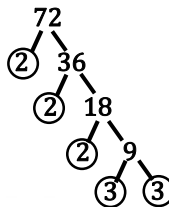
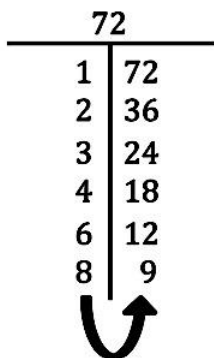
## Identifying Factors



Name: \_\_\_\_\_

For each number given below, use your knowledge of divisibility rules to create a UT diagram to list factor pairs. Then, list all factors of the number in ascending order. Finally, record the prime decomposition of each number in both expanded and exponential forms. An example is given below:

Example:

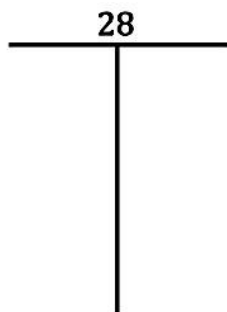


all factors (ascending): {1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72}

prime decomposition (expanded):  $2 \cdot 2 \cdot 2 \cdot 3 \cdot 3$

prime decomposition (exponential):  $2^3 \cdot 3^2$

1)

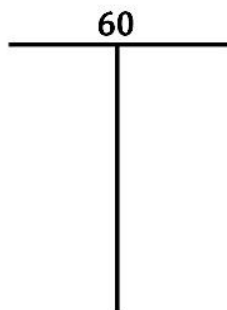


all factors (ascending):

prime decomposition (expanded):

prime decomposition (exponential):

2)

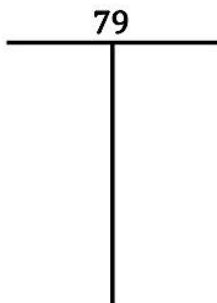


all factors (ascending):

prime decomposition (expanded):

prime decomposition (exponential):

3)

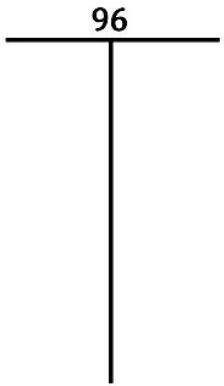


all factors (ascending):

prime decomposition (expanded):

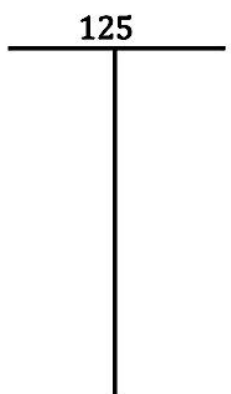
prime decomposition (exponential):

4)



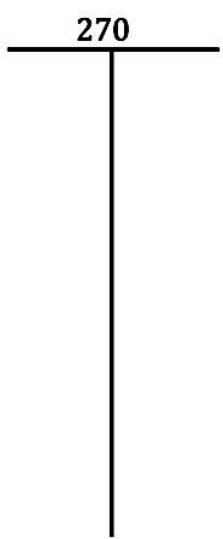
all factors (ascending):  
 prime decomposition (expanded):  
 prime decomposition (exponential):

5)



all factors (ascending):  
 prime decomposition (expanded):  
 prime decomposition (exponential):

6)



all factors (ascending):  
 prime decomposition (expanded):  
 prime decomposition (exponential):