1-4. Use the divisibility rules to complete the chart below.
Place a if the given number is divisible by $2,3,4,5,6,9$, or 10 .

|  | Divisible by... |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{9}$ | $\mathbf{1 0}$ |  |
| 936 |  |  |  |  |  |  |  |  |
| 2025 |  |  |  |  |  |  |  |  |
| 784 |  |  |  |  |  |  |  |  |
| 990 |  |  |  |  |  |  |  |  |

5.-11. Place the following numbers in the correct container.

| 7 | 19 | 27 | 43 | 51 | 66 | 81 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Primes | Composites |
| :---: | :---: |
|  |  |

12. 



Set B
$\begin{array}{llll}25 & 55 & 85 & 115\end{array}$

Which statement best describes a common characteristic of Set A but NOT a common characteristic of Set B?
A. The numbers are all divisible by 5 .
B. The numbers are all divisible by 3 .
C. The numbers are all greater than 10 .
D. The numbers are all composite.
13.

Set C
$16 \quad 24 \quad 32 \quad 40$

Set D
$28 \quad 38 \quad 48 \quad 58$

Which statement best describes a common characteristic of Set C or Set D?
A. Each number in Set D is less than 50 .
B. Each number in Set D is divisible by 8 .
C. Each number in Set C has less than 5 factors.
D. Each number in Set C is divisible by 2, 4, and 8 .

| 14. | How many prime numbers are there between 70 and 80 ? |  |
| :---: | :---: | :---: |
| 15. | Which of the following are true (list all letters that are true)? <br> A. Composite numbers always have two as a factor. <br> B. Every number ending in five has the number 5 as a factor. <br> C. Every number that is divisible by 4 is also divisible by 2 . <br> D. Mr. Underwood was known as "Prime Time" when he played football. |  |
| 16. | Mrs. Atkins is having a Sushi and Skittles Celebration. She has 48 California rolls and 64 Skittles. Each student attending will receive the same food plate and all the food will be distributed. What is the greatest number of students who can attend the party? <br> A. 2 <br> C. 16 <br> B. 8 <br> D. 24 |  |
| 17. | A lemon meringue pie is divided into 30 pieces. What are all the different numbers of people you could divide it equally among so that there are no pieces left over? <br> A. $1,2,15,30$ <br> C. $1,2,3,4,5,6,8,10,15,30$ <br> B. $1,2,3,5,6,10,15,30$ <br> D. $2,3,10,15$ |  |
| 18. | Mr. Mangham has 72 football cards. He wants to put them into groups so that each group has the same number of cards. Which of the following does NOT represent the number of cards he could put into each group? <br> A. 6 <br> C. 18 <br> B. 9 <br> D. 32 |  |

19.-22. Find the prime factorization of the following numbers by creating a factor tree. Write your answer with exponents.

| Tree | $\mathbf{5 2}$ |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| Answer |  |


| Tree 108 |
| :--- |
|  |
|  |
|  |
|  |
|  |
|  |
| Answer |

23.-28. Find the Greatest Common Factor (GCF) by creating factor trees and then a Venn diagram.


