

2.10  
GCF and LCM

# NOTES

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

- 1) Decompose 18 and 30 into their prime factorizations. Then record the **prime factors** of 18 and 30 in expanded and exponential forms.

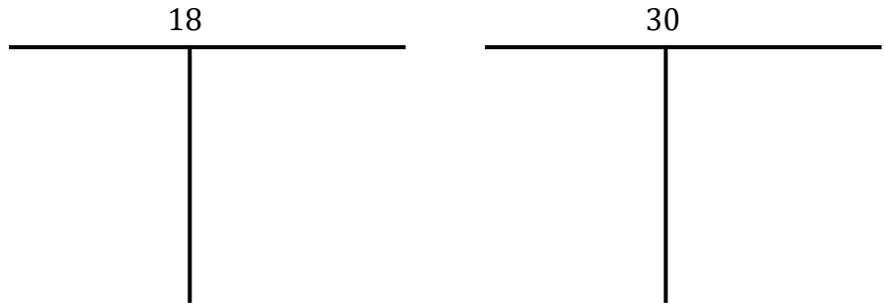
18 (expanded form) =

18 (exponential form) =

30 (expanded form) =

30 (exponential form) =

- 2) Identify **all factors** of 18 and 30 using the UT models provided below.



- 3) List all factors of 18 and 30 in ascending order.

factors of 18 =

factors of 30 =

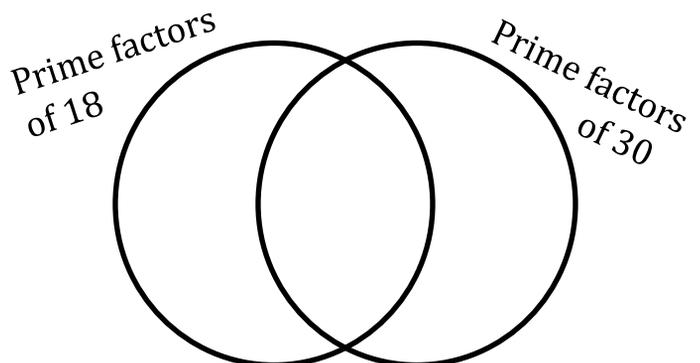
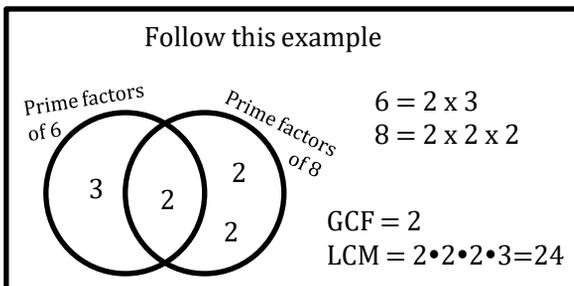
- 4) What is the greatest factor found in **both** sets above?

- 5) List multiples of 18 and 30 until you find the **first** positive multiple they share. Circle that **common** multiple.

Multiples of 18:

Multiples of 30:

- 6) Sort the **prime factors** of 18 and 30 into the Venn Diagram shown below. Use the example shown for 6 and 8 below as a guide.



- 7) GCF =

- 8) LCM =

1) Decompose 24 and 42 into their prime factorizations. Then record the **prime factors** of 24 and 42 in expanded and exponential forms.

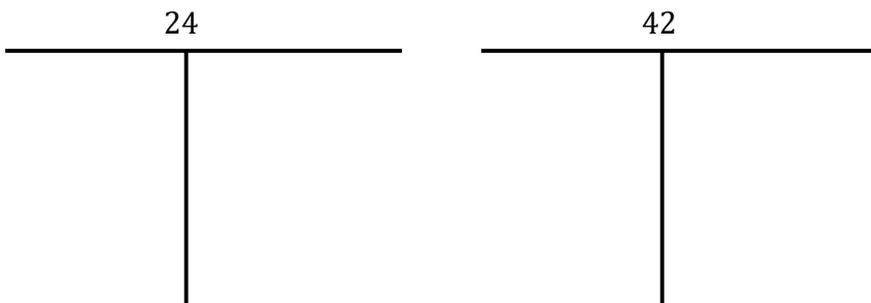
24 (expanded form) =

24 (exponential form) =

42 (expanded form) =

42 (exponential form) =

2) Identify **all factors** of 24 and 42 using the UT models provided below.



3) List all factors of 24 and 42 in ascending order.

factors of 24 =

factors of 42 =

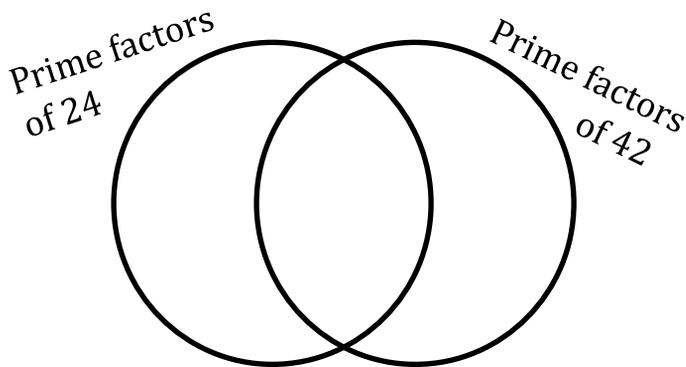
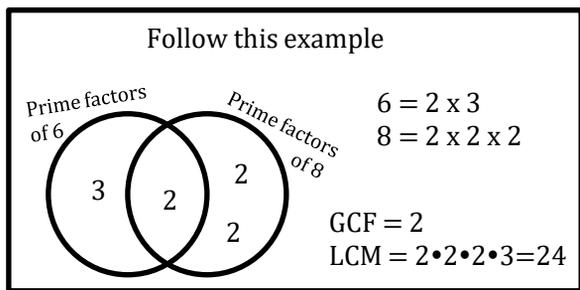
4) What is the greatest factor found in **both** sets above?

5) List multiples of 24 and 42 until you find the **first** positive multiple they share. Circle that **common** multiple.

Multiples of 24:

Multiples of 42:

6) Sort the **prime factors** of 24 and 42 into the Venn Diagram shown below. Use the example shown for 6 and 8 below as a guide.



7) GCF =

8) LCM =

- 1) Decompose 35 and 49 into their prime factorizations. Then record the **prime factors** of 35 and 49 in expanded and exponential forms.

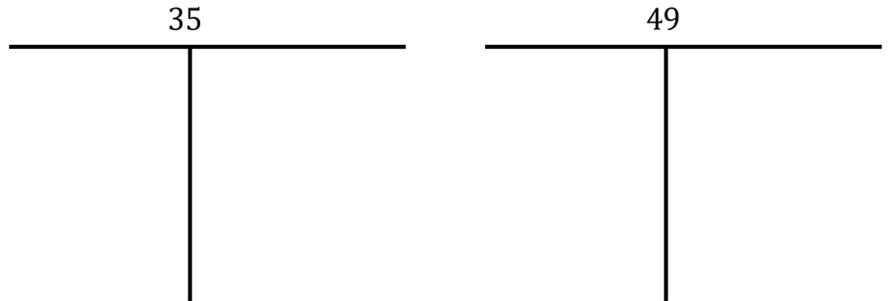
35 (expanded form) =

35 (exponential form) =

49 (expanded form) =

49 (exponential form) =

- 2) Identify **all factors** of 35 and 49 using the UT models provided below.



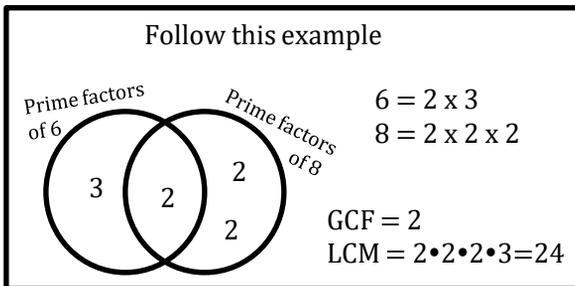
- 3) List all factors of 35 and 49 in ascending order.

factors of 35 =

factors of 49 =

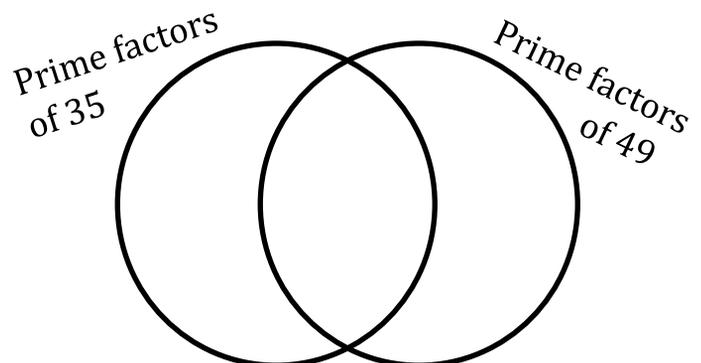
- 4) What is the greatest factor found in **both** sets above?

- 5) Sort the **prime factors** of 35 and 49 into the Venn Diagram shown below. Use the example shown for 6 and 8 below as a guide.



6) GCF =

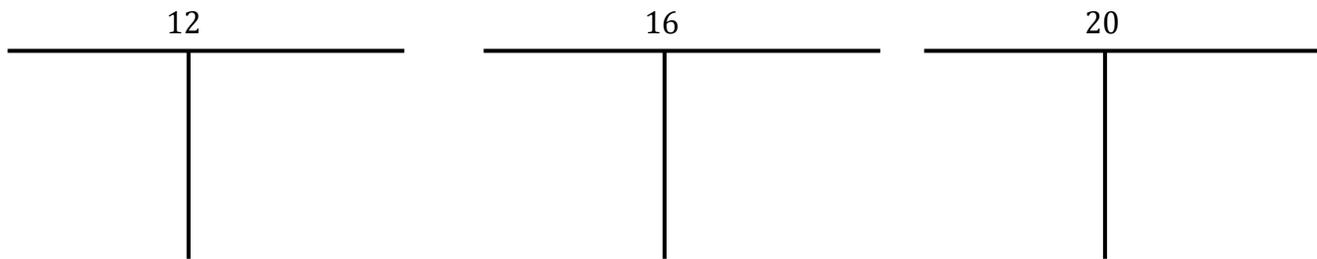
7) LCM =



1) Decompose 12, 16, and 20 into their prime factorizations. Then record the **prime factors** of 12, 16, and 20 in expanded and exponential forms.

- 12 (expanded form) =
- 12 (exponential form) =
- 16 (expanded form) =
- 16 (exponential form) =
- 20 (expanded form) =
- 20 (exponential form) =

2) Identify **all factors** of 12, 16, and 20 using the UT models provided below.

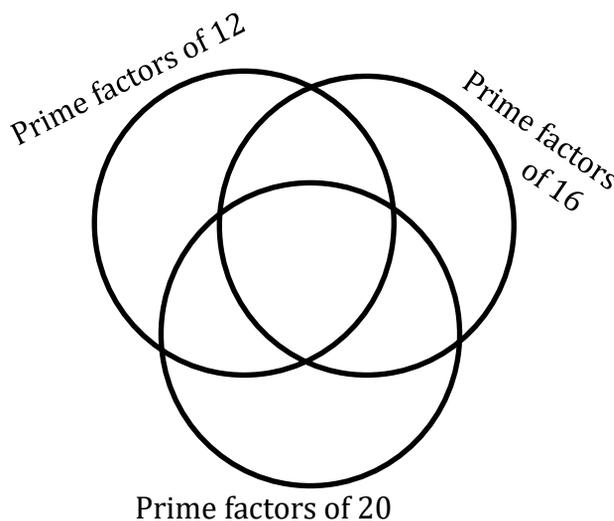
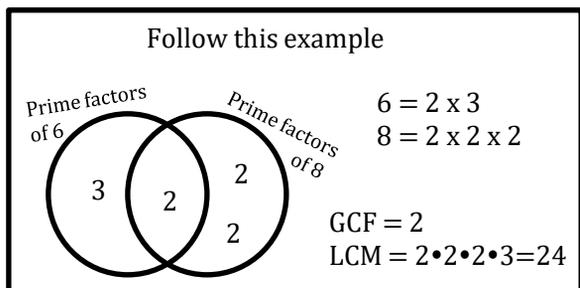


3) List all factors of 12, 16, and 20 in ascending order.

- factors of 12 =
- factors of 16 =
- factors of 20 =

4) What is the greatest factor found in **all three** sets above?

5) Sort the prime decomposition of 12, 16 and 20 into the Venn Diagram shown below. Use the example shown for 6 and 8 below as a guide.



6) GCF =

7) LCM =

- 1) Decompose 27, 48, and 60 into their prime factorizations. Then record the **prime factors** of 27, 48, and 60 in expanded and exponential forms.

27 (expanded form) =

27 (exponential form) =

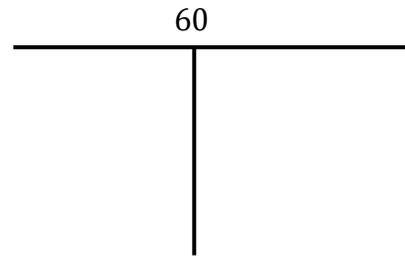
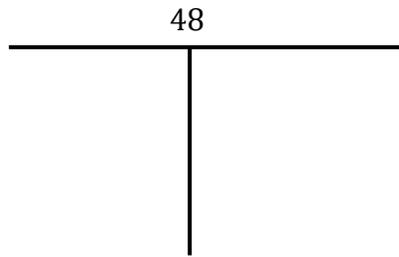
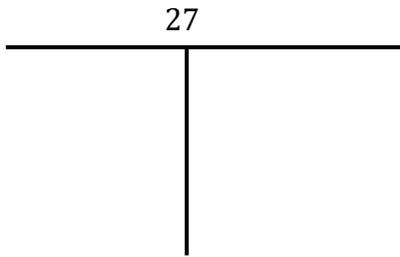
48 (expanded form) =

48 (exponential form) =

60 (expanded form) =

60 (exponential form) =

- 2) Identify **all factors** of 27, 48, and 60 using the UT models provided below.



- 3) List all factors of 27, 48, and 60 in ascending order.

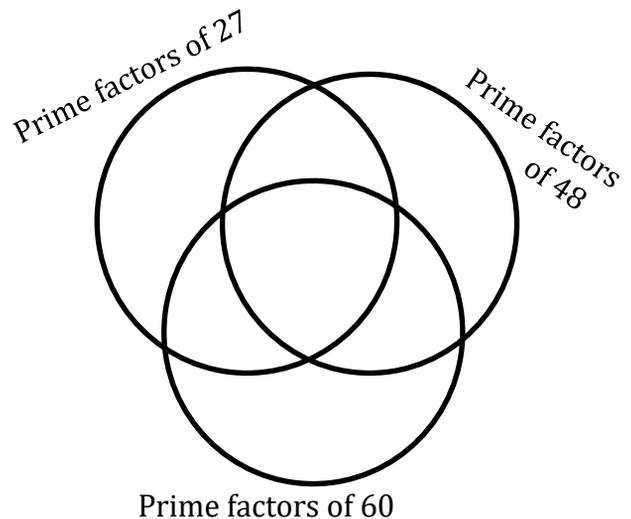
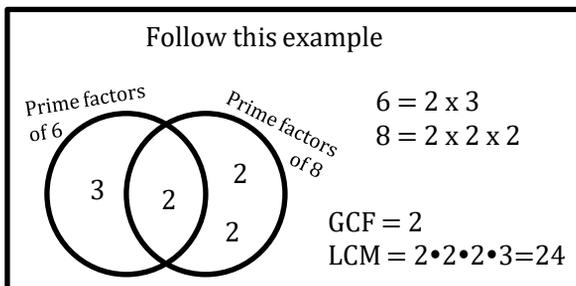
factors of 27 =

factors of 48 =

factors of 60 =

- 4) What is the greatest factor found in **all three** sets above?

- 5) Sort the prime factors of 27, 48 and 60 into the Venn Diagram shown below. Use the example shown for 6 and 8 below as a guide.



- 6) GCF =

- 7) LCM =

- 1) Decompose 10, 35, and 110 into their prime factorizations. Then record the **prime factors** of 10, 35, and 110 in expanded and exponential forms.

10 (expanded form) =

10 (exponential form) =

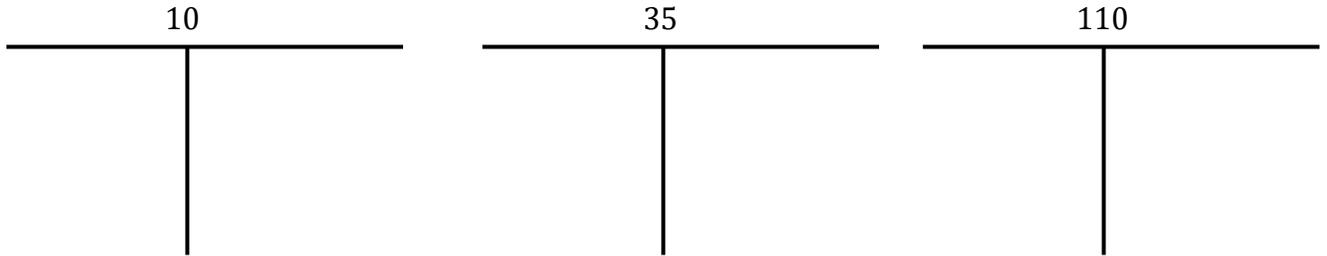
35 (expanded form) =

35 (exponential form) =

110 (expanded form) =

110 (exponential form) =

- 2) Identify **all factors** of 10, 35, and 110 using the UT models provided below.



- 3) List all factors of 10, 35, and 110 in ascending order.

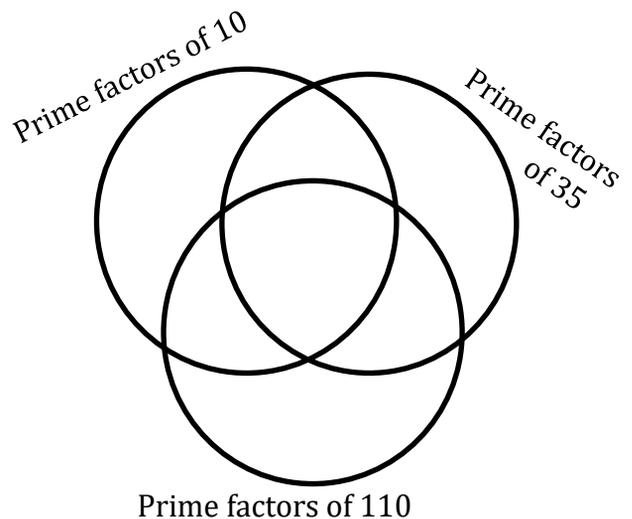
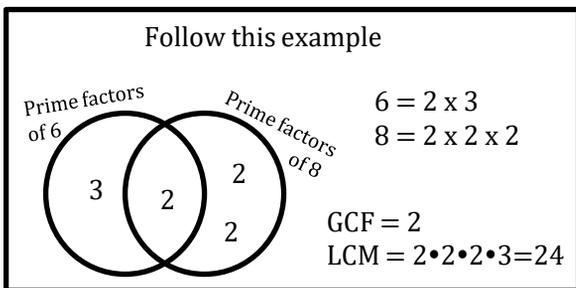
factors of 10 =

factors of 35 =

factors of 110 =

- 4) What is the greatest factor found in **all three** sets above?

- 5) Sort the **prime factors** of 10, 35 and 110 into the Venn Diagram shown below. Use the example shown for 6 and 8 below as a guide.



- 6) GCF =

- 7) LCM =