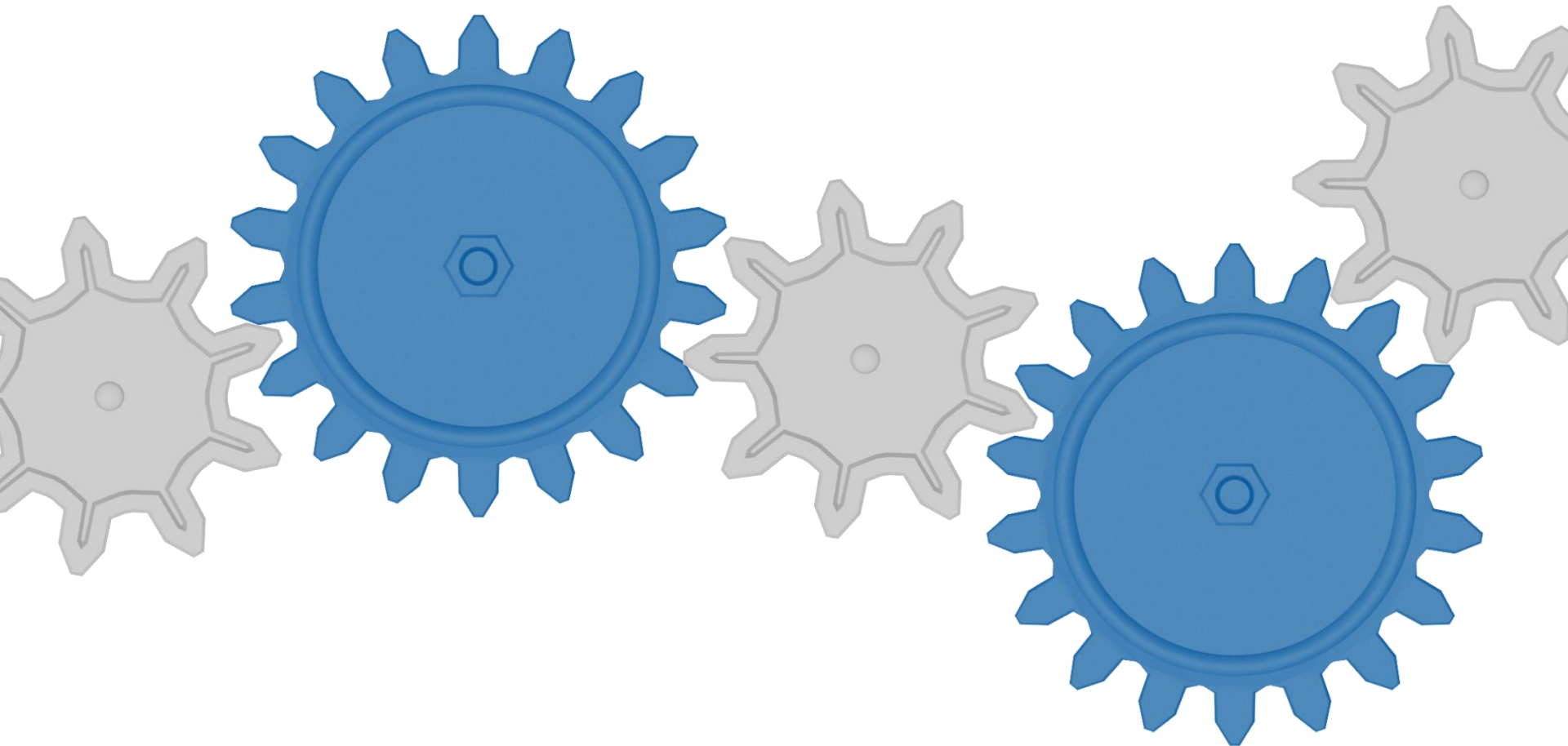# Do Now

Please work silently on the Do Now, then continue to work on yesterday's notes. Thank you!
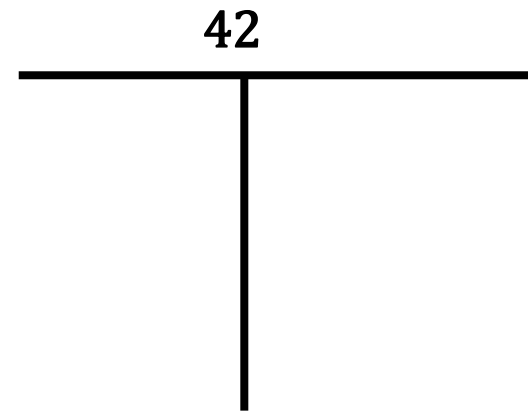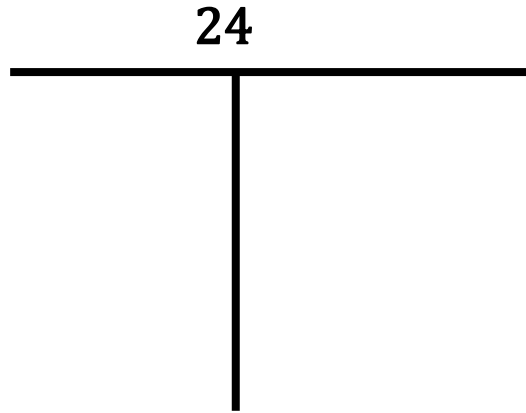
Do Now

For the set of numbers below, determine the prime factorization of each number. Then, sort the numbers' prime factors into a Venn Diagram.

Use your Venn diagram to determine the GCF (greatest common factor) and LCM (least common multiple) of the set of numbers.

13 and 24

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

24

42

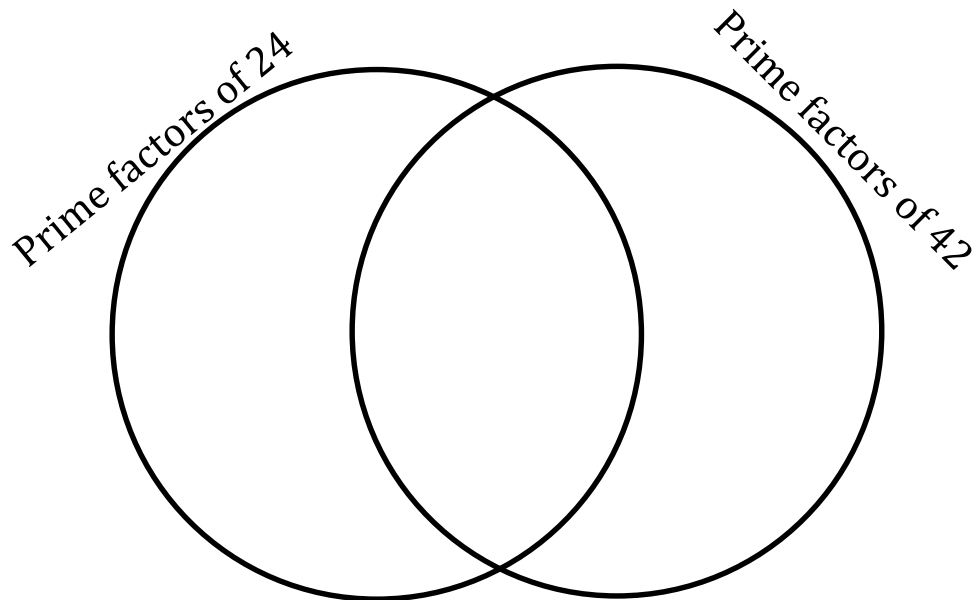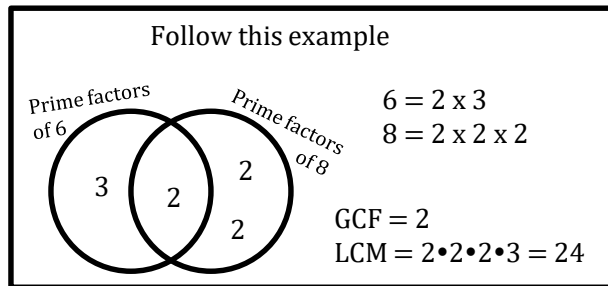3) List all factors of 24 and 42 in ascending order.

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.
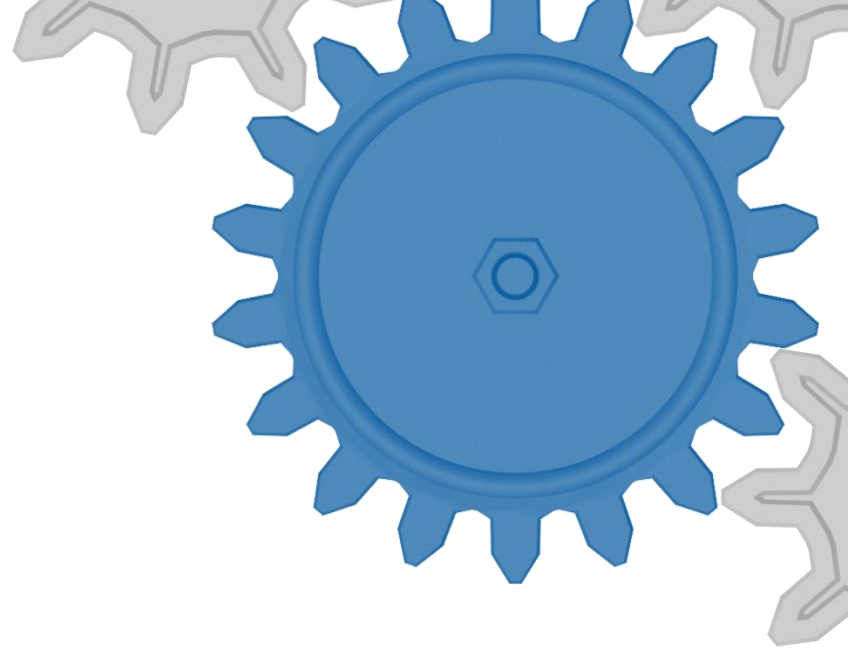
Multiples of 24:

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.

Follow this example

Prime factors of 6

3

2

Prime factors of 8

2

2

$6 = 2 \times 3$
$8 = 2 \times 2 \times 2$

$GCF = 2$
$LCM = 2 \cdot 2 \cdot 2 \cdot 3 = 24$

7) GCF =

8) LCM =

Prime factors of 24

Prime factors of 42

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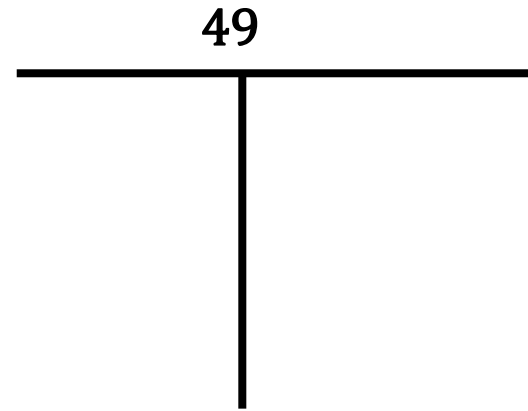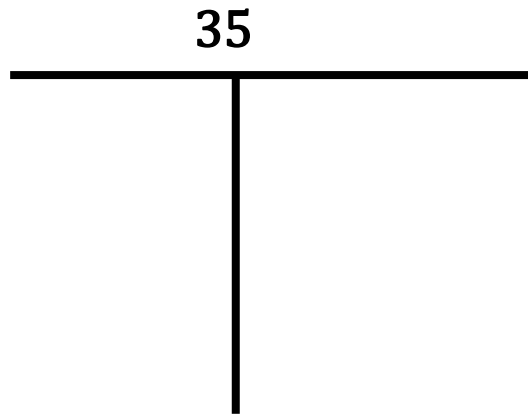
35 (expanded form) =

35 (exponential form) =

49 (expanded form) =

49 (exponential form) =

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

35	49

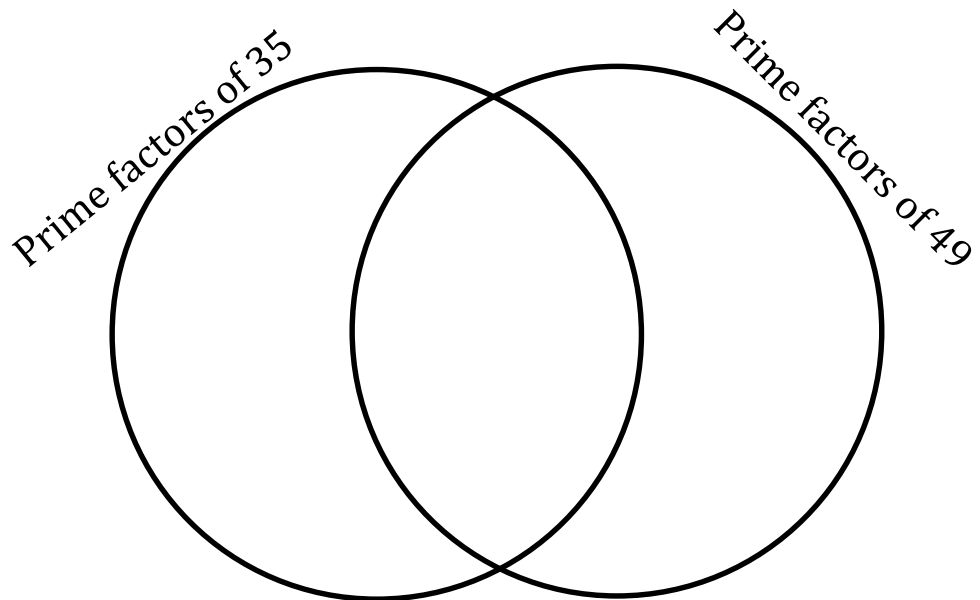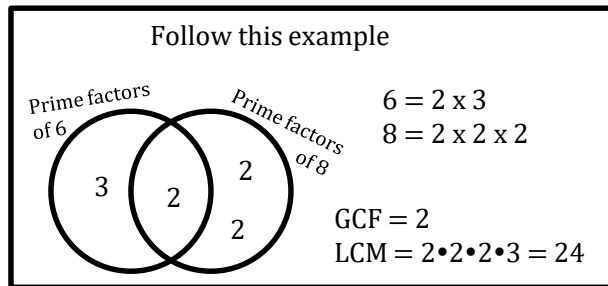3) List all factors of 35 and 49 in ascending order.

factors of 35 =

factors of 49 =

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

5) List multiples of 35 and 49 until you find the **first** positive multiple they share. Circle that **common** multiple.

Multiples of 35:

Multiples of 49:

6) 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.

Follow this example

Prime factors of 6

Prime factors of 8

3

2

2

2

$6 = 2 \times 3$
$8 = 2 \times 2 \times 2$

$GCF = 2$
$LCM = 2 \cdot 2 \cdot 2 \cdot 3 = 24$

7) GCF =

8) LCM =

Prime factors of 35

Prime factors of 49

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) =
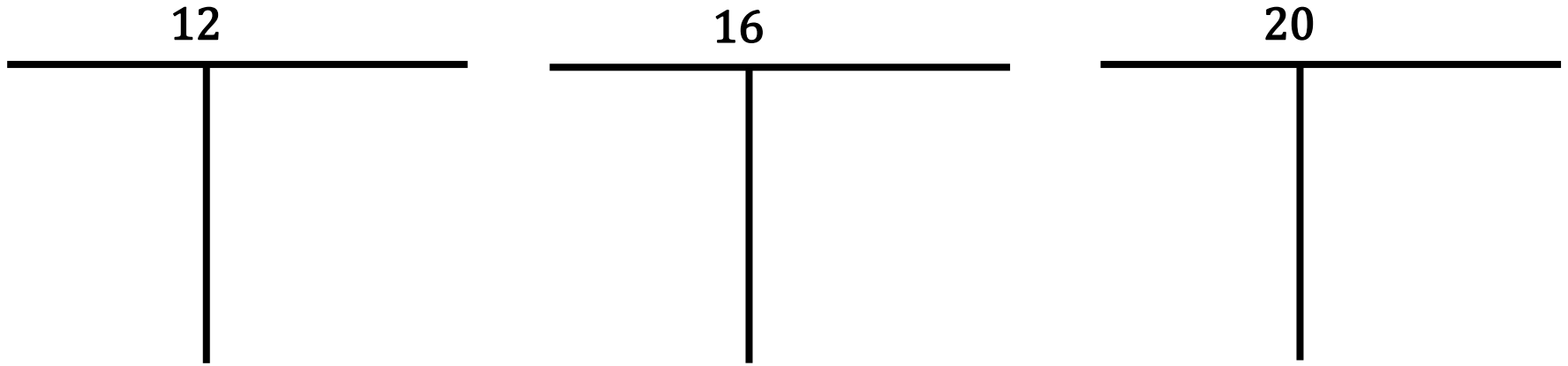
12 (exponential form) =

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.

12	16	20

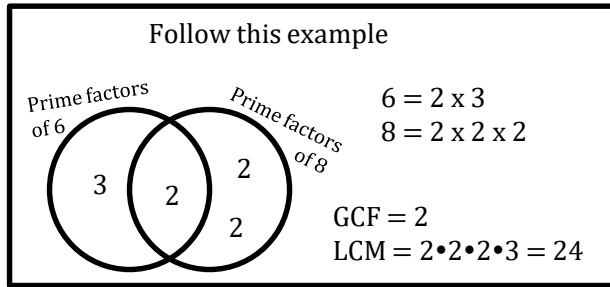3) List all factors of 12, 16, and 20 in ascending order.

factors of 12 =

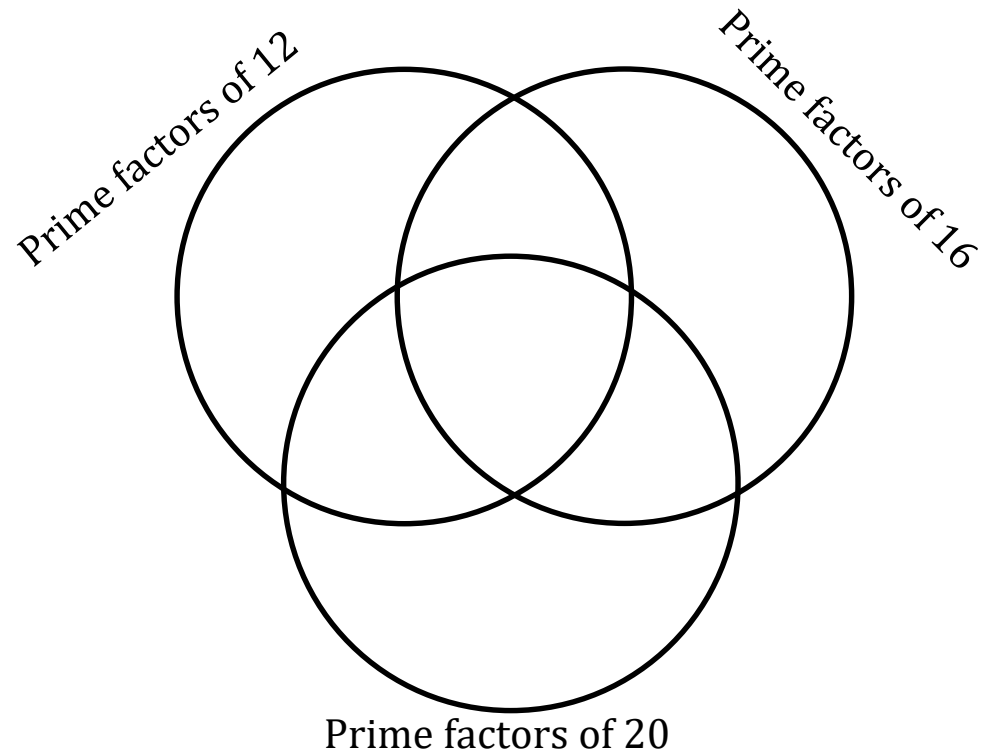factors of 16 =

factors of 20 =

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

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

Follow this example

Prime factors of 6

Prime factors of 8

3   2   2
        2

6 = 2 x 3
8 = 2 x 2 x 2

GCF = 2
LCM = 2•2•2•3 = 24

Prime factors of 12

Prime factors of 16

Prime factors of 20

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) =

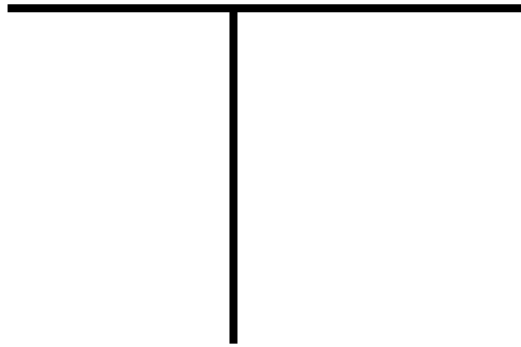48 (exponential form) =

60 (expanded form) =

60 (exponential form) =

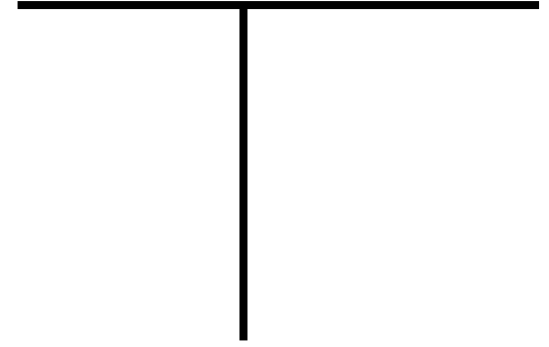2) Identify **all factors** of 27, 48 and 60 using the UT models provided below.

27	48	60

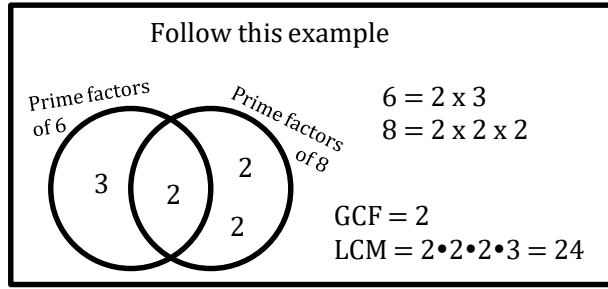3) List all factors of 27, 48, and 60 in ascending order.
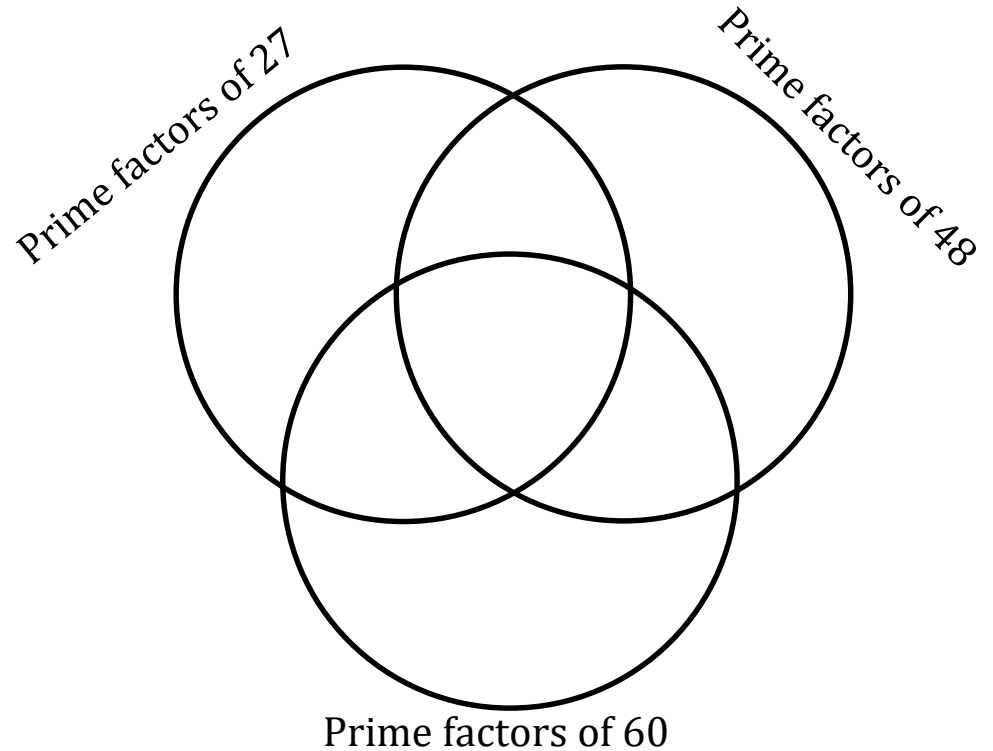
factors of 27 =

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.

Follow this example

Prime factors of 6

Prime factors of 8

3   2   2
          2

6 = 2 x 3
8 = 2 x 2 x 2

GCF = 2
LCM = 2•2•2•3 = 24

Prime factors of 27

Prime factors of 48

Prime factors of 60

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) =
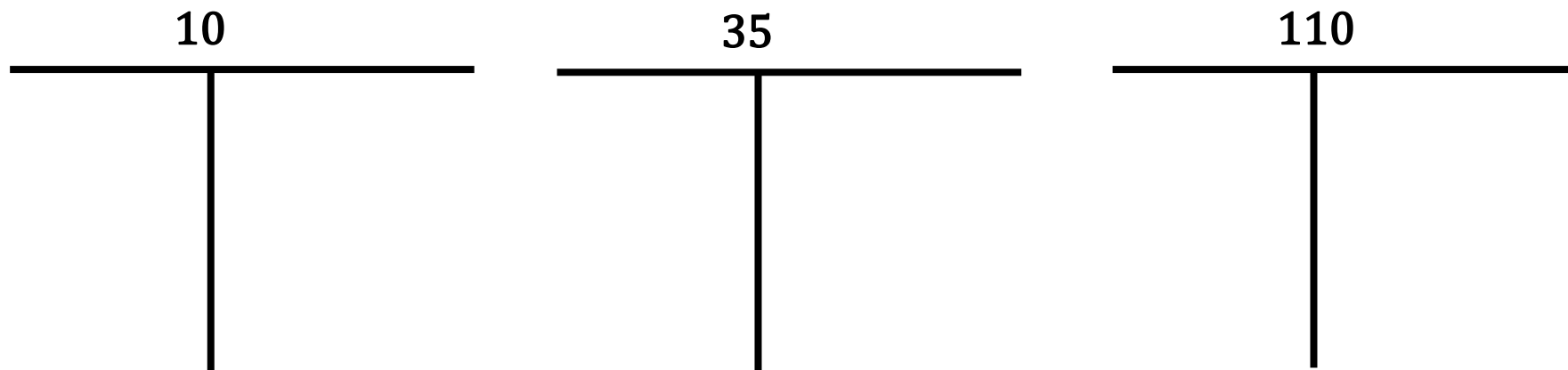
10 (exponential form) =

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.

10	35	110

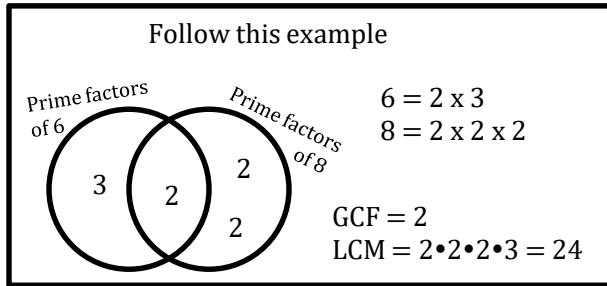3) List all factors of 10, 35, and 110 in ascending order.

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.

Follow this example

Prime factors of 6

Prime factors of 8

3   2   2

2

6 = 2 x 3
8 = 2 x 2 x 2

GCF = 2
LCM = 2•2•2•3 = 24

Prime factors of 10

Prime factors of 35

Prime factors of 110

6) GCF =

7) LCM =