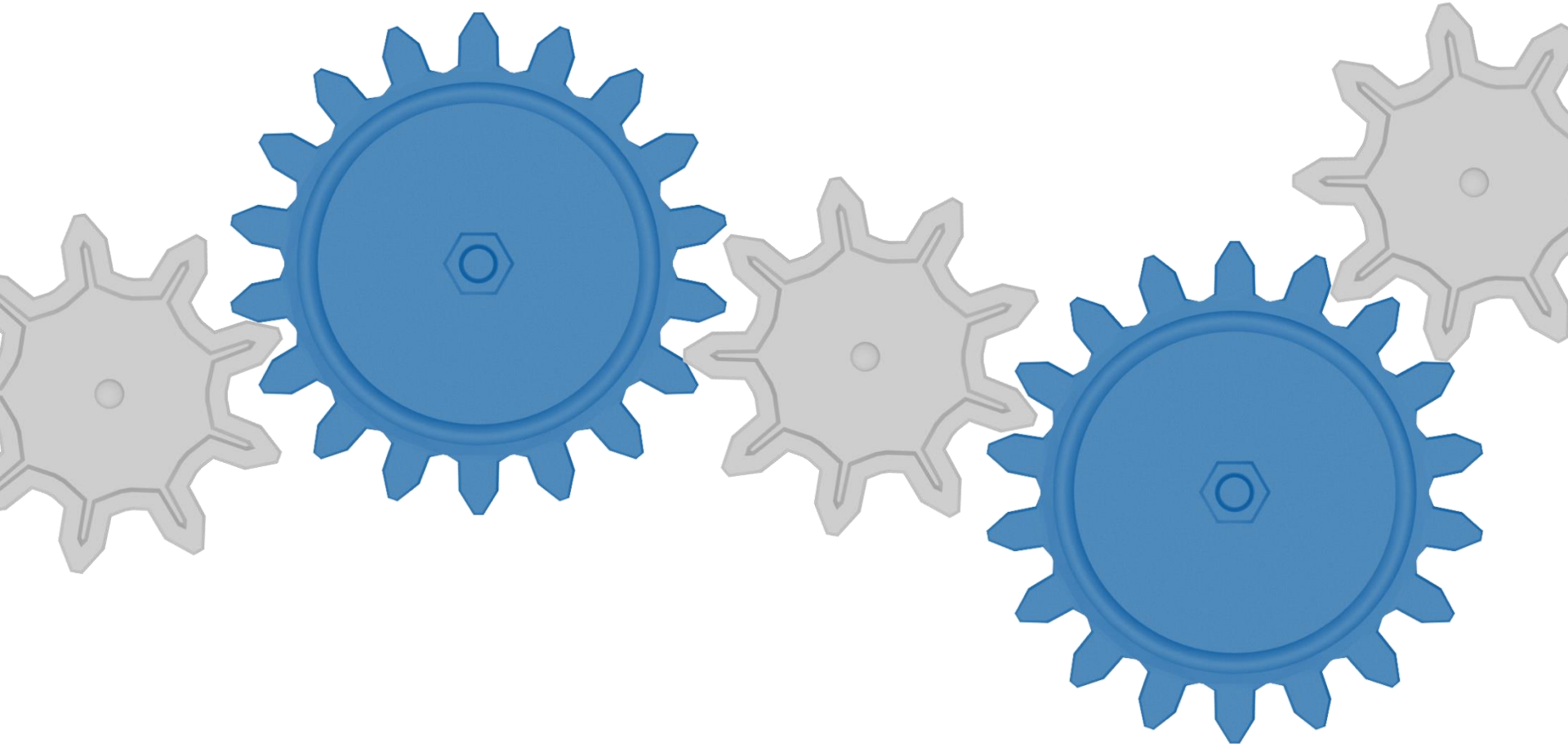
Do Now

Please place your homework in front of you and work silently on the Do Now. Thank you!



Do Now

What number between 104 and 140 is exactly divisible by 6 **and** exactly divisible by 15?

3A.3

NOTES

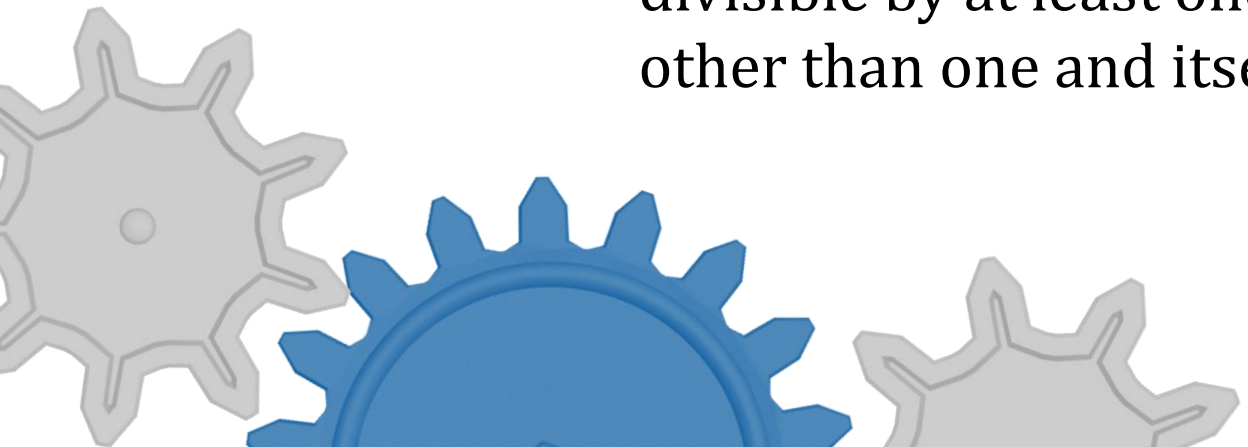
Name:_____

Factor: A __portion__ of a product, that, when multiplied by other __factors__, results in the entire __product__.

Multiple: The __product__ of a number and any __whole number__.

Prime number: A __whole number__ with exactly two __factors__, one and itself.

Composite number: A __whole number__ that is exactly divisible by at least one __factor__ other than one and itself.



Greatest Common Factor (GCF): The largest ___factor___ shared by two or more positive whole numbers.

Least Common Multiple (LCM): The smallest ___positive___ multiple shared by two or more positive whole numbers.

How many factors do 18 and 24 have in common?

18	24

What is the GCF of 18 and 24?

How many multiples do 18 and 24 have in common?

Multiples of 18:

Multiples of 24:

What is the least common multiple (LCM) of 18 and 24?

<u>The Fundamental Theorem of Arithmetic</u> states that all integers greater than 1 are either prime numbers themselves or a unique product of prime numbers.

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Express the prime decomposition of 18 and 24 in expanded and exponential forms.

18 prime decomposition (expanded):
18 prime decomposition (exponential):

24 prime decomposition (expanded):
24 prime decomposition (exponential):

How many factors do 12, 16, and 20 have in common?

12	16	20

What is the GCF of 12, 16 and 20?

Multiples of 12:

Multiples of 16:

Multiples of 20:

What is the least common multiple (LCM) of 12, 16 and 20?

Express the prime decomposition of 12, 16 and 20 in expanded and exponential forms.

12 prime decomposition (expanded):
12 prime decomposition (exponential):

16 prime decomposition (expanded):
16 prime decomposition (exponential):

20 prime decomposition (expanded):
20 prime decomposition (exponential):