Divisibility Rules : Prime and Composite Numbers

I can differentiate between a prime or composite number using divisibility rules.

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# Divisibility Rule for 2

• All even numbers are divisible by 2.

• If the last digit in the number ends with 0, 2, 4, 6, or 8 it **IS** divisible by 2 and is a **COMPOSITE** number.

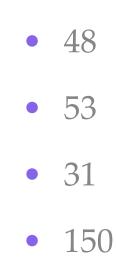


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• On your whiteboards, write which numbers below are divisible by 2, and explain your reasoning for each number.





## Divisibility Rule for 3

 Add up all the digits in the number and divide by 3. If it can be divided by 3 evenly, it is divisible by 3 and is a COMPOSITE number.



### Example for 3

- The number 87
  - 8 + 7 = 15
    - 15/(3) = 5
    - 87 is divisible by 3. Is 87 a prime or composite number? Think and share with your shoulder partner.



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• On your whiteboards, write which numbers are divisible by 3. SHOW YOUR WORK FOR EACH NUMBER!!





• 32

• 96



### Divisibility Rule for 5

• If a number ends with a 5 or 0 it is divisible by 5 and is a **COMPOSITE** number.





- On your whiteboards, write which numbers are divisible by 5, and explain your reasoning for each number.
  - 40
  - 155
  - 103
  - 65



### So, let me ask you...

• On your whiteboard, write the answer to the question below and share with your shoulder partner when I say.

• If a number **IS** divisible by 2, 3, or 5 is it a composite number? Why?



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# Let's Wrap It Up!

- Write your answers on your whiteboards.
  - If a number ends in 0, 2, 4, 6, or 8, which number is it divisible by?
  - If a number ends in 0 or 5, which number is it divisible by?
  - If you add up the digits in a number and it can be divided by 3 it is divisible by which number?

