# 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.

# You Try...

- On your whiteboards, write which numbers below are divisible by 2, and explain your reasoning for each number.
    - 48
    - 53
    - 31
    - 150

# 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
  - $8 + 7 = 15$
    - $15 \,/\, \textcircled{3} = 5$
    - 87 is divisible by 3. Is 87 a prime or composite number? Think and share with your shoulder partner.

# You Try…

- On your whiteboards, write which numbers are divisible by 3. SHOW YOUR WORK FOR EACH NUMBER!!
  - 78
  - 57
  - 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.

# You Try...

- 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?

# 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?