

# Divisibility Rules

How do we know when we can divide one number into another exactly?

# Divisibility Rules (2)

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- A number can be divided by 2 if
- the last digit is even



# Divisibility Rules (3)

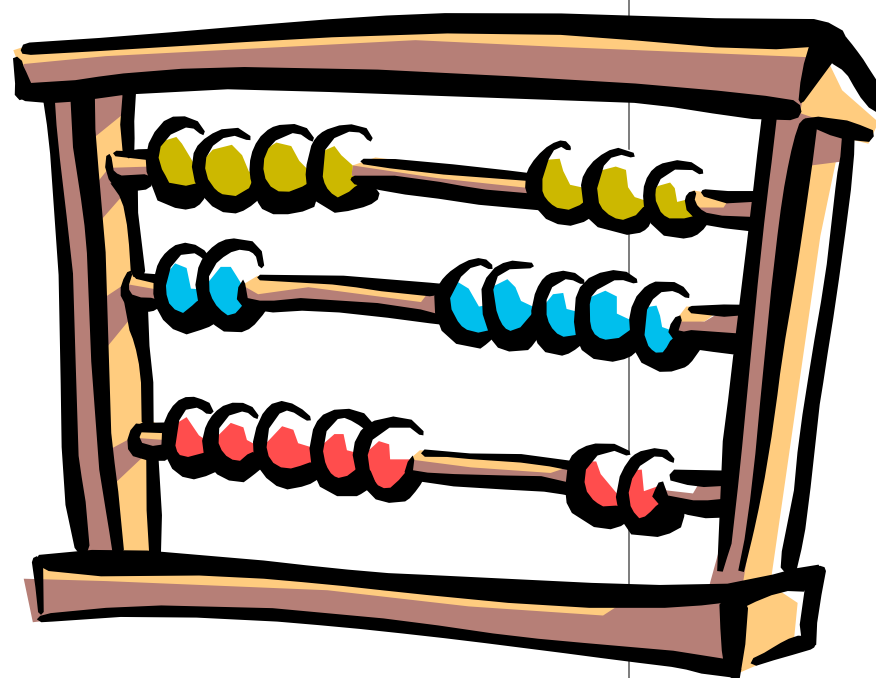
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- a number is divisible by 3 if
- the sum of the digits is 3, 6 or 9

# Divisibility Rules (4)

- a number is divisible by 4 if
- the number made by the last two digits can be divided by 4



# Divisibility Rules (5)

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- A number is divisible by 5 if
- the last digit is a 5 or a 0



# Divisibility Rules (6)

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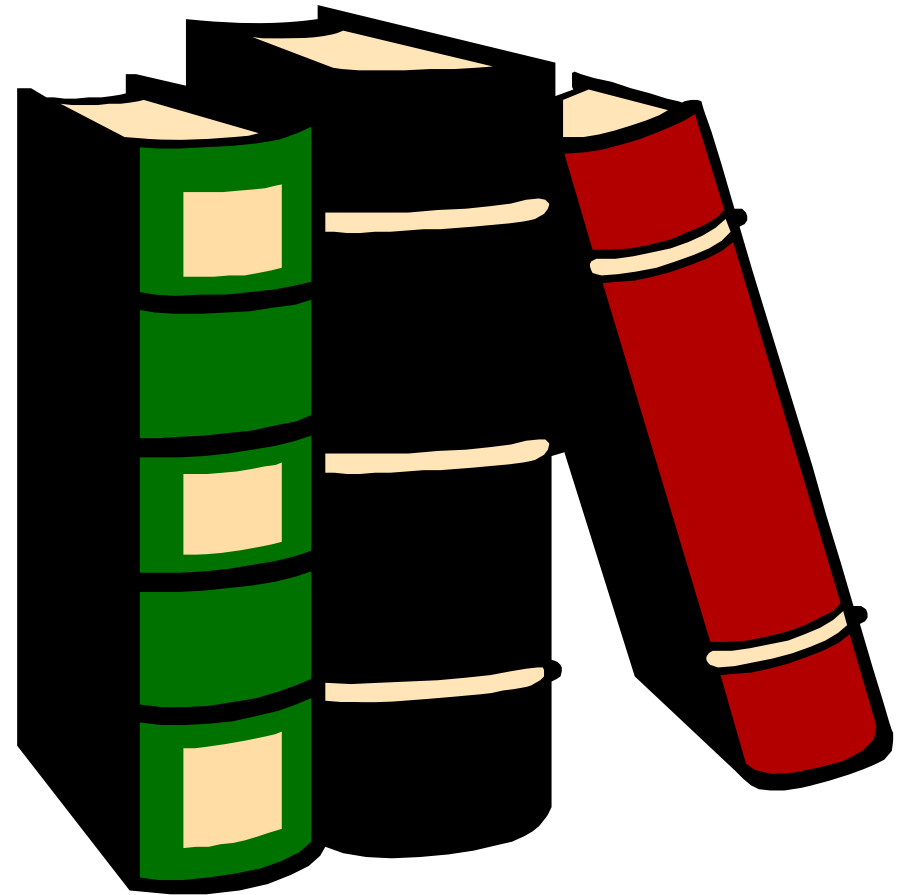
- A number can be divided by 6 if
- the last digit is even **and** the sum of all the digits is 3, 6 or 9



# Divisibility Rules (8)

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- A number is divisible by 8 if
- the number made by the last three digits will be divisible by 8



# Divisibility Rules (9)

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- A number is divisible by 9 if
- the sum of all the digits will add to 9





# Divisibility Rules (10)

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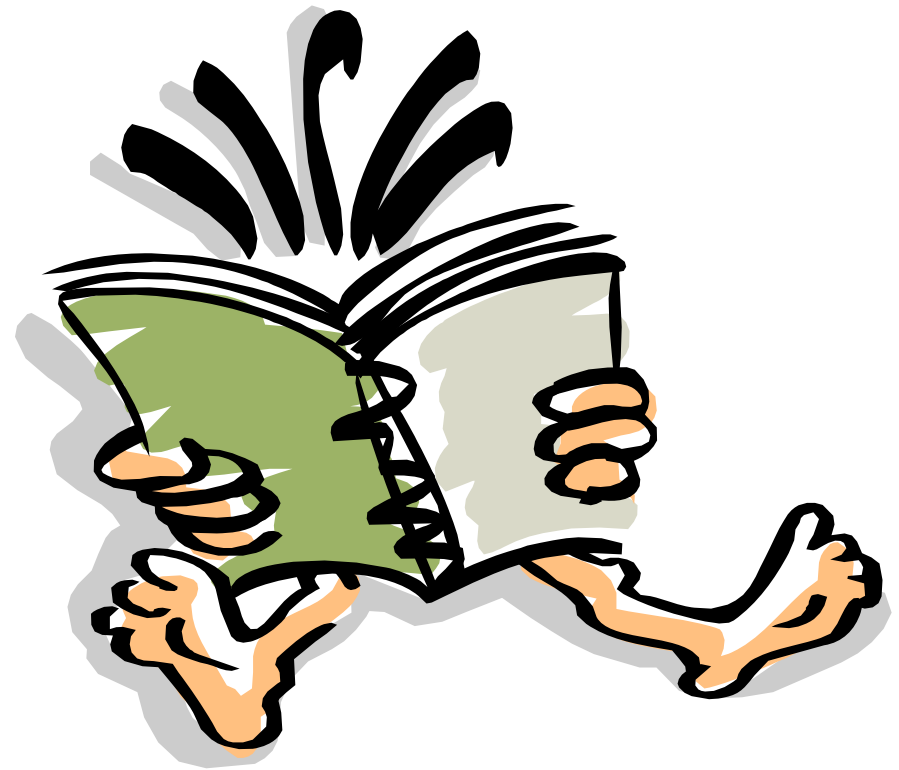
- A number can be divided by 10 if
- the last digit is a 0



# Divisibility Rules

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- A number can be divided by 7 if
- ..... can you find a rule?



# Divisibility Rules

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- 2, the last digit will be an even number
- 3, all the digits will add to 3,6 or 9
- 4, the number made by the last two digits can be divided by 4
- 5, the last digit will be a 5 or 0

# Divisibility Rules

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- 6, the last digit will be even and the digits will add to 3, 6 or 9
- 8, the number made by the last three digits will be divisible by 8

# Divisibility Rules

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- 9, the sum of the digits will be 9
- 10, the last digit will be a 0
- There is no easy test for 7, although some methods have been invented, however it is easier to use a pencil and paper method.

# Divisibility Rules

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- Apply these rules to these numbers:
- 74,673,042
- 444,555,448
- 61,616,168
- 732,510
- 66,666,666
- 179,131,590