2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97 101 103 107 109 113 127 131 137 139 149 151 157 163 167 173 179 181 191 193 197 199

More Fun with Prime Numbers

Week 1

Homework

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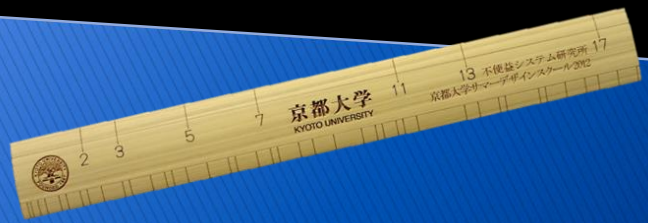

2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97 101 103 107 109 113 127 131 137 139 149 151 157 163 167 173 179 181 191 193 197 199

Problem 1

Choose all the prime numbers.

2011 2013 2015 2017 2019
2021 2023

- N ≥ 2 is a **prime number** if it is divisible only by 1 and itself.

Euclid of Alexandria (fl. 300BC)

https://en.wikipedia.org/wiki/Euclid

Problem 1

- 2+0+1+3 = 6 is **divisible by 3**.

  ⇒ 2013 is **divisible by 3**.

  ⇒ 2013 is not a prime number.
- 2015 is **divisible by 5**.

  ⇒ 2019 is not a prime number.
- 2+0+1+9 = 12 is **divisible by 3**.

  ⇒ 2019 is **divisible by 3**.

  ⇒ 2019 is not a prime number.

Euclid of Alexandria (fl. 300BC)

Problem 1

- $2023 = 7 \times 17 \times 17$

  $\Rightarrow$ 2023 is **not** a prime number.

- Remaining numbers are

  2011 2017 2021.

- **Are they prime numbers?**

Euclid of Alexandria (fl. 300BC)

Problem 1

- 2021 is **not** a prime number!

  $2021 = 43 \times 47$

- Remaining numbers are

  2011 2017

- **Are they prime numbers?**

Euclid of Alexandria (fl. 300BC)

Problem 1

- **Yes!**

Answer

2011 2017

Euclid of Alexandria (fl. 300BC)