

Digital Communication: Binary

Binary uses base ____ ?

Computers use binary because:

Using what you learned yesterday about converting numbers from the X-Manians' base 6 number system to base 10, attempt to convert this base 2 binary number to base 10:

$$10101_2 = \text{_____}_{10}$$

How could we convert a base 10 number to binary?

$$3_{10} = \text{____}_2$$

$$78_{10} = \text{_____}_2$$

$$1001_2 = \text{——}_{10}$$

Try counting from zero to 20 in binary (make a list using vertical columns).

Choose a number n such that

$$16_{10} < n < 128_{10}$$

Convert your base 10 number to binary.

Write the binary number on scratch paper and trade it with someone.

Try to convert each others' binary numbers back to base 10. Check your work with each other.