Introducing Binary Numbers

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Computers work best when things are on or off. Computers have only two numerals, zero and one. (*Poor computers!*)





We call numbers with only zero and one **binary numbers**. The "bi" in binary means *two*, like the two wheels on a **bi**cycle. We call each place a *bit*, short for **bi**nary digit.

Binary numbers also have places, but they're times two places.

ones place. One stands alone and starts every system of number	Ones place:	One stands alone and starts every system of number
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Twos place: Two times one

Fours place: Two times two

Eights place: Two times four

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Each place is two times the one before it. We say this is a **base two** number system because we multiply by two to get to the next place.

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Exercises

Write your age in years
Put your binary cards on the desk, with "one" on the right, then two, four, eight, and sixteen.
Turn cards over