

Place Value of Large Numbers

Math Words

- million
- billion
- trillion
- googol

A pattern is used to name very large numbers.

TRILLIONS	BILLIONS	MILLIONS	THOUSANDS	ONES
hundred trillions	hundred billions	hundred millions	hundred thousands	hundreds
ten trillions	ten billions	ten millions	ten thousands	tens
one trillions	one billions	one millions	one thousands	ones

Every three digits are separated by a comma.

The three grouped digits share a name (such as “millions”).

Within a group of three digits, there is a pattern of **ones**, **tens**, and **hundreds**.

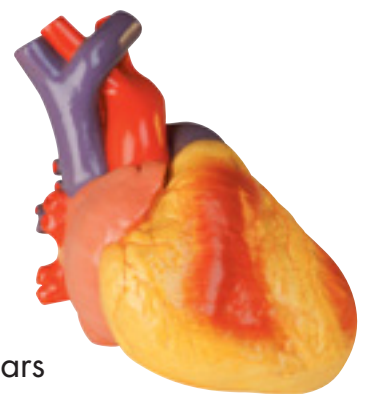
Very large numbers are used to count heartbeats.

(one) about 1 heartbeat per second

(one thousand) 1,000 heartbeats in less than 20 minutes

(one million) 1,000,000 heartbeats in less than 2 weeks

(one billion) 1,000,000,000 heartbeats in about 35 years



A googol is a very, very large number!

One googol is written as the digit 1 followed by 100 zeros.

10,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
 000,000,000,000, 000,000,000,000,000,000,000,000,000,000,000,000,000,
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