# TECHNOLOGY MILESTONES

### Mneme and Cepheus Engine Technology Level Reference Table

| **Human Era (HE)** | **CE TL** | **MTL** | **CE descriptions & added descriptions** | **Mneme TL (MTL)** |
| --- | --- | --- | --- | --- |
| 1 HE (10,000 BCE) | 0 | 0 | (Agriculture and organized society) | Neolithic Revolution |
| 5,000 HE (5,000 BCE) | 1 | 01 | Bronze Age | Bronze Age |
| 5,500 HE (500 BCE) | 1.3 | 02 | Iron Age | Axial Age |
| 10,000 HE (0 CE) | 1.7 | 03 | Medieval Era | Imperial Era |
| 11,500 HE (1500 CE) | 2 | 04 | Renaissance | Enlightenment |
| 11,800 HE (1800 CE) | 3 | 05 | Mass production allows for product standardization, bringing the germ of the industrial revolution and steam power. | Industrial Revolution |
| 11,900 HE(1900 CE) | 4 | 5.5 | Transition to the Industrial Revolution is complete, bringing plastics, the radio and other such inventions. | Technological Revolution |
| 11,920 HE(1920 CE) | 5 | 06 | Widespread electrifications, telecommunication, and internal combustion. | (Age of electrical energy, mass communication, and the widespread use of the engine) |
| 11,950 HE (1950 CE) | 6 | 07 | Development of fission power | Early Atomic & Space Age |
| 12,000 HE (+2000 CE) | 6.5 | 08 | and more advanced computing. | Information Age & Commercial Space |
| 12,050 HE (+2050 CE) | 7 | 09 | Can reach orbit reliably and has telecommunications satellites. | New Space Race |
| 12,100 HE (+2100 CE) | 8 | 10 | Possible to reach other worlds in the same system, although terraforming or full colonization is not within the culture's capacity. | Cis Lunar Space Development. |
| 12,200 HE (2200 CE) | 8.5 | 11 | (Planetary Colonization) | Interplanetary Settlement and Mega Structure Age. The ability to build infra and mega structures in space. |
| 12,300 HE (2300 CE) | 9 | 12 | Space travel is vastly safer and faster; first steps into Jump Drive technology. | Post Earth Dependence. Intrastellar Economy can survive without earth. |
| 12,400 HE (2400 CE) | 9.5 | 13 | (Conquest of the Solar system) | Outer System Development. Stable Jump travel to Outer systems. |
| 12,500 HE (2500 CE) | 10 | 14 | With the advent of Jump, nearby systems are opened up. | Early Interstellar Trade and Exploration Era. |
| 12,600 HE (2600 CE) | 10.5 | 15 | (Interstellar Colonization) | Interstellar Colonization. |
| 12,700 HE (2700 CE) | 11 | 16 | The first primitive (non-creative) artificial intelligences become possible in the form  of “low autonomous” interfaces, as computers begin to model synaptic networks. | Self-sufficient Megastructures and Swarms. |

Cepheus Engine and Mneme Tech Level

#### ***TL 0*** [***Neolithic Revolution***](https://en.wikipedia.org/wiki/Neolithic_Revolution) (10,000 BCE)

This is the age of early human development when humans developed Agriculture and started organizing into larger, more sophisticated groups than tribal families. There was more rapid development of tools and materials and experimentation in systems of data transmission and preservation. This is around 10,000 BCE or 1 in the Human Era or Holecene Calendar.

* Pastoral Nomads, Beginning Agriculture, Fishing Villages, Proto-Cities,  Steles, Poultices, Herbs, Fermentation, Animal Husbandry

#### ***TL 1.0/01*** [***Bronze Age***](https://en.wikipedia.org/wiki/Bronze_Age) (3500 BCE)

* First Empires, Chariots, Cities, Bureaucracies, Writing, Castes, Surgery, Plantations, Early Construction, Institutional Slavery,

#### ***TL 1.3/02*** [***Axial Age***](https://en.wikipedia.org/wiki/Axial_Age) (500 BCE)

* Schools, Philosophy, Reflection, Meditation, Organized Religion, Professional Administration, Horses, Siege Engines and Warfare, Water Wheels, Political thought,

#### ***TL 1.7/03 Imperial Era*** (200+ BCE)

* Galleys, Professional Armies, Imperial Administration, Colonization, Feudalism, Mechanical Artillery, Windmills, Early Communications networks, Construction,

#### ***TL 2/04*** [***Enlightenment***](https://en.wikipedia.org/wiki/Age_of_Enlightenment)*(1500+)*

* Ocean going vessels, Paper, Telescopes, gunpowder, cannons, articulated plate, Clockwork, Microscope, Muskets, Stock Market, Joint-Stock Company, Corporations, Republic, Democracy, Canned food, Economic thought,

#### ***TL3/05*** [***Industrial Revolution***](https://en.wikipedia.org/wiki/Industrial_Revolution) *(1800+)*

* Steam Engine, Early Electricity, Batteries, Steam Locomotives, Balloons and Airships, Industrialization, Mechanization, Public Schools, Mass Production, Germ Theory, repeating firearms, rifled cannons, iron cladded ships.

#### ***TL 4/5.5*** [***Technological Revolution***](https://en.wikipedia.org/wiki/Technological_revolution) *(1900+) [[1]](#footnote-0)*

* Steam Turbines, Internal Combustion Engines, Electrification, Automobiles, Continental Railway Network, Submarines, Aircraft, Antibiotics, Heredity, Biochemistry,

#### ***TL 5/06*** [***Technological Revolution***](https://en.wikipedia.org/wiki/Technological_revolution) *(1920+)[[2]](#footnote-1)*

* Automatic weapons, Tanks, Combat Aircraft. Nuclear Fission, First Nuclear Bomb, Early Electronics, Analog and mechanical Computers, Radar, Jeep, Commercial Television, Microwave oven, Plastics, Transistors, supersonic flight, first programable computing machine, Ballistic Missiles, Cryptography,

#### ***TL 6/07 Early Atomic & Space Age*** *(1950+)[[3]](#footnote-2)*

* Nuclear Ballistic Missiles, Nuclear Submarines, Orbital Rockets, Radar, Gas Turbines, Solar Power, artificial Satellite and Satellite Communications, Electronic Transistors, Electronic Computers, Enterprise Computers.

#### ***TL 6.5/08 Information Age & Commercial Space*** *(2000+)*

* Personal Computers, Internet, Commercial Space ventures, Strategic Satellite Dominance, Orbital Space Stations, Diversification of Computing Technology, Electric Vehicles, Environmental Technology, Genetically Modified Organisms for commercial sale, Drones, Cellphones,
* The AI-Race leading to accessible powerful AIs. The AI race leads to Distributed Manufacturing, known as the Maker Era where smaller and leaner manufacturing companies are able to rapidly prototype and deploy technology that once required much larger companies.

#### ***TL 7/09 Space Industrialization*** *(2050+)*

* 0G Orbital Manufacturing, Beginning Lunar Infrastructure, Decoupling of Major Economies, Decoupling on the Internet, Early Nano-Technology, Independent Space Infrastructure, Early cybernetic implants and prosthetics, Exoskeletons, Genetic therapy, Thorium Reactors, Commodified Micro Nuclear Reactors, Early Fusion Reactors, Semi-Autonomous Vehicles, Asteroid Deflection, Capture and Early Mining.  Sky Hooks and Inertia Tethers on earths orbits.

#### ***TL 8/10 Interplanetary Settlement.****(2100+)*

* Early Space Elevators in Development, Permanent Space Stations, Early Artificial Gravity Stations, Accessible Cybernetic Prosthetics, Lunar Colonization, Long Term Mars Space Station, Beginning Mars Infrastructure. Asteroid and Lunar Mining. Manned Interplanetary missions.  Lunar Artificial Spin-Gravity Habitats. Massive Inertia Tethers for Lunar Travel, Exo Skeletons, Early Repair Drones, Low G medicine

#### ***TL 8.5/11 Post Earth Dependence*** *(2200+)*

* Jovian Age
* Also known as Interplanetary Settlement. Mega System Age.The ability to build the infra and mega structures in space.
* Advanced Habitat Technology in Dense and Hazardous Worlds. Vacuum Airships and Habitats. High Endurance Vessels (able to operate in decades from support).
* Prolific Space Elevators. Other space elevators being constructed and one for Mars being constructed. City Space Habitats.  Massive Inertia Tethers built around the inner solar system and Jupiter.
* Accessible Commercial Interplanetary Ships. Permanent Habitat Ships.
* Mega Systems. this refers to near-fully autonomous end-to-end systems. Example are the
  + Space Elevators and the autonomous systems that maintain them and the automation involved in creating them and seeding a new Space Elevator.
  + Solar Swarms - a collection of Light Sail satellites that orbit the earth, venus, and mars defecting and concentrating solar radiation. Solar swarms are used to cool venus with a symbiotic relationship with its space elevator, power and protect earth, and concentrate sunlight for the terraforming of mars.

#### ***TL 9/12 Outer System Colonization.*** *(2300+)*

* Colonization of Venus, Mars, Asteroid belt, and Jupiter’s Moons. Migration of many industries to these other resource-rich planetary systems.
* Anagathics, Full Cybernetics, neural cybernetics. Robotic Manufacturing, early practical self-replicating machines.
* Space Elevators are made on earth and sent to Venus, Mars, and Jupiter. Solar Swarms used to manage Venus and Mars solar challenges. Early Terraforming. Mars being the key space elevator manufacturer for the rest of the solar system.
* *Early Jump Drive, used to travel to the Outer Solar System. Colony Ships. Only those who can afford such losses partook of this, like early rocketry, early circumnavigation, early flight*.
* This era ends with the Interplanetary Economy able to survive without earth.
* Colonization of Saturn, Uranus and the farther Planetary Systems.

#### ***TL 9.5/13 Outer System Industrialization.*** *(2400+)*

* Stable Jump travel to Outer systems.
* Early Interstellar Jump.

#### ***TL 10/14 Early Interstellar Trade and Era.****(2500+)*

* Interstellar Trade and Exploration. The development of Interstellar Jump Networks. Interstellar Economy.
  + Jump Carriers. large vessels able to carry ships and jump to an another star system. So large as to be able to jump a large portion of a space elevator.
  + Jump Gates. Infrastructure allowing any ship to jump to another jump gate in a different star.

#### ***TL 10.5/15 Interstellar Colonization.*** *(2600+)*

* Colonization of Interstellar Systems.

#### ***TL 11/16 Self-sufficient Megastructures and Swarms.*** *(2700+)*

* Solar Swarms and Space Elevators automation to the extent they are self-sufficient. This allows humans to colonize any star system, even if it doesnt have Terrestrial or Earthlike worlds.
* Early jump gates

### 

|  | **CE TL** | **MTL** | **COMPUTE** | **Cost** |
| --- | --- | --- | --- | --- |
| 10,000-5,001 BCE | 0 | 0 | 1x(10^-6) | Annual |
| 5,000-499 BCE | 1 | 01 | 1x(10^-5) | Annual: 12 Cr |
| 500-1 BCE | 1.3 | 02 | 1x(10^-4) | Annual: 60 Cr |
| 0-1499 CE | 1.7 | 03 | 1x(10^-3) | Annual: 120 Cr |
| 1500-1799 CE | 2 | 04 | 1x(10^-2) | Annual: 300 Cr |
| 1800-1899 CE | 3 | 05 | 1x(10^-1) | Annual: 600 Cr |
| 1900-1929 CE | 4 | 5.5 | 1x(10^-1) | Annual: 1,200 Cr |
| 1920-1949 CE | 5 | 06 | 1 compute. 1x(10^0) | Annual: 2,500Cr |
| 1950-1999 CE | 6 | 07 | 1x(10^1) | 1 KCr |
| 2000-2049 CE | 6.5 | 08 | 1x(10^2) | 2 KCr |
| 2050-2099 CE | 7 | 09 | 1x(10^3) | 5 KCr |
| 2100-2199 CE | 8 | 10 | 1x(10^4) | 10 KCr |
| 2200-2299 CE | 8.5 | 11 | 1x(10^5) | 100 KCr |
| 2300-2399 CE | 9 | 12 | 1x(10^6) | 1 MCr |
| 2400-2499 CE | 9.5 | 13 | 1x(10^7) | 2 MCr |
| 2500-2599 CE | 10 | 14 | 1x(10^8) | 5 MCr |
| 2600-2699 CE | 10.5 | 15 | 1x(10^9) | 10 MCr |
| 2700-2799 CE | 11 | 16 | 1x(10^10) | 20 MCr |

Computing in Mneme Variant Rules of Cepheus Engine.

doc\_id: baf7db29-e315-4151-a8e5-b8e3faa585ec

<https://chat.openai.com/share/81ebeecd-b1e4-4586-98fe-4c548a64ec2c>

mechanics for computing power:

**Tech Level (TL):** Each Tech Level represents a technological era, with each era having a base Compute power. The base Compute power increases by a factor of 10 for each Tech Level starting from TL6 (1 for TL6, 10 for TL7, 100 for TL8, and so on).

**Compute (C):** This is the base computational power of a computer at a given Tech Level.

**Mass (M):** The default mass of a computer is 10kg. Smaller computers are less than this, and Larger Computers are just Combined Computers.

**Quantity (Q):** This is the number of computers being combined.

**Compute Modifier (M):** This is a factor that adjusts the Compute power based on the size and cost of the computer. It is calculated as follows:

**Total Compute (TC):** This is the combined computational power of multiple computers.

When combining computers take the most powerful computer, the unit with the most compute, and average all the other less powerful computers. They contribute an amount of additional compute equal to 1% x their quantity.

Examples of Combined Computers.

TC = C\_highest + (C\_Average x Q\_lesser\_computers).

**Babages Difference Engine**.

We can assume that Babbage’s Difference engine is made up of compute part each with a compute value of 0.01. Being 4,500kg (4.5 tons) we can say its 450x of 0.01.

0.01 + (449 x 0.01 x 0.01 compute) = 0.05 compute. The GM can say its pretty advanced and apply a tech level modifier of x3. For a compute of 0.164.

Example Late TL8, a lets put the average compute is 1.5x for 150C and 3KCr.

Let’s combine 10 of them for a server cluster. That’s 150C + ( 9Q x 1.5C) = 163C.

Ships have a Distributed cluster of 100 computers (for 1 Ton).

**Cost:** The cost of each computer is calculated as follows:

For each level of size smaller, the cost is tripled and rounded to the nearest multiple of 3 or 10 (whichever is more convenient).

For Cheap computers, the cost is halved.

For Very Cheap computers, the cost is reduced to 20% of the original cost.

Lets try that.

This is the babbage Engine.

C is 0.3

Quantity is 450 units.

Compute. This is the basic unit of computation. This is equivalent to a human computer performing a task with the right tools.

Eras before TL5/6, 1 compute is rarer and reflects the education available in the era. The fractions of compute dont have the necessary education to perform the task.

Compute does not scale with Flops or other benchmarks. It’s an abstraction representing compute capability and performance for game purposes. Also the Compute varies from 0.5x early in

Compute determine what can be performed by the Computer.

Compute Portability. A computer can have ½ the Mass, but cost 3x more with some drawbacks or 2x more but at 0.7x compute. This can be taken twice, (up to ¼ the Mass) but the GM determines if it can be taken more times.

Larger

Analytical Engines.

| **Computer** | **Estimated Weight/Qty** | **Year** | **CE TL** | **MN TL** | **COMP** | **TC** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Babbage Difference Engine | 4,500 kg | 1820 | 3 | 5 | 0.3 | 0.94 | Designed by Charles Babbage in the 19th century, this mechanical device was intended to automatically compute mathematical tables. The project was never completed during Babbage's lifetime. |
| Colossus | 5,000 kg | 1943 | 5 | 6 | 3 | 9.71 | Developed during World War II to break German ciphers, Colossus was the first electronic digital programmable computing device. |
| Harvard Mark I | 4,200 kg | 1944 | 5 | 6 | 3 | 9.15 | Also known as the IBM Automatic Sequence Controlled Calculator (ASCC), it was a large-scale electromechanical computer. |
| ENIAC | 30,000 kg | 1946 | 5 | 6 | 3 | 19.43 | Short for Electronic Numerical Integrator and Computer, ENIAC was among the earliest electronic general-purpose computers made. |
| UNIVAC | 7,600 kg | 1951 | 6 | 7 | 5 | 18.78 | UNIVAC (UNIVersal Automatic Computer) was the first commercial computer produced in the United States. |
| IBM 305 | 1,000 kg | 1965 | 6 | 7 | 5 | 10 | The IBM 305 RAMAC was the first commercial computer that used a moving-head hard disk drive (magnetic disk storage) for secondary storage. |
| PDP-1 | 730 kg | 1969 | 6 | 7 | 10 | 18.54 | The PDP-1 (Programmed Data Processor-1) was the first computer in Digital Equipment Corporation's PDP series and was first produced in 1959. |
| IBM Personal Computer | 10 kg | 1980s | 6 | 7 | 10 | 11 | Introduced in 1981, the IBM PC set the standard for personal computing and was widely copied, leading to the emergence of 'IBM-compatible' PCs. |
| iMac G3 | 10 kg | 1990s | 6 | 7 | 20 | 22 | Released by Apple in 1998, the iMac G3 was significant for its innovative design and it played a major role in reviving Apple's fortunes. |
| IBM Roadrunner | 129,600 kg | 2000s | 6.5 | 8 | 30 | 713.05 | In 2008, the IBM Roadrunner system was the first to break the petaflop barrier, performing over one thousand trillion (one quadrillion) sustained floating-point operations per second. |
| IBM Summit | 92,160 kg | 2010s | 6.5 | 8 | 70 | 1414 | In 2018, IBM's Summit became the world's fastest supercomputer, with a peak performance of 200 petaflops. |
| Fugaku | 1,589,760 kg | 2020s | 6.5 | 8 | 100 | 8074.36 | Developed by RIKEN and Fujitsu, Fugaku is, as of 2021, the world's fastest supercomputer, with a peak performance of over 442 petaflops. |

### 

|  | **CE TL** | **MTL** | **COMPUTE** | **Cost** | **Capabilities** |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  | 0.1 |  |  |
| EARLY 1920-1949 CE |  |  | 0.3 |  |  |
| MID 1920-1949 CE | 5 | 06 | 1 |  |  |
| LATE 1920-1949 CE / EARLY 1950-1999 CE |  | 6.5 | 3 |  |  |
| MID 1950-1999 CE | 6 | 07 | 10 | 1 KCr |  |
| LATE 1950-1999 CE / EARLY 2000-2049 CE |  | 7.5 | 30 | 2 |  |
| MID 2000-2049 CE | 6.5 | 08 | 100 | 5 KCr |  |
| LATE 2000-2049 CE / EARLY 2050-2099 CE | 6.5 | 8.5 | 300 |  |  |
| MID 2050-2099 CE | 7 | 09 | 1,000 | 10 KCr |  |
| LATE 2050-2099 CE / EARLY 2100-2199 CE |  | 9.5 | 3,000 |  |  |
| MID 2100-2199 CE | 8 | 10 | 10,000 | 100 KCr |  |
| LATE 2100-2199 CE / EARLY 2200-2299 CE |  | 10.5 | 30,000 |  |  |
| MID 2200-2299 CE | 8.5 | 11 | 100,000 | 1 MCr |  |
| LATE 2200-2299 CE / EARLY 2300-2399 C |  | 11.5 | 300,000 |  |  |
| MID 2300-2399 CE | 9 | 12 | 1x(10^6) | 10 MCr |  |
| LATE 2300-2399 CE / EARLY 2400-2499 CE |  | 12.5 | 3x(10^6) |  |  |
| MID 2400-2499 CE | 9.5 | 13 | 1x(10^7) | 5 MCr |  |
| LATE 2400-2499 CE / EARLY 2500-2599 CE |  | 13.5 | 3x(10^7) |  |  |
| MID 2500-2599 CE | 10 | 14 | 1x(10^8) | 10 MCr |  |
| LATE 2500-2599 CE / EARLY 2600-2699 CE |  | 14.5 | 3x(10^8) |  |  |
| MID 2600-2699 CE | 10.5 | 15 | 1x(10^9) | 20 MCr |  |
| LATE 2600-2699 CE / EARLY 2700-2799 CE |  | 15.5 | 3x(10^9) |  |  |
| MID 2700-2799 CE | 11 | 16 | 1x(10^10) | 50 MCr |  |
|  |  |  |  |  |  |

Difference Engines. [https://en.wikipedia.org/wiki/Difference\_engine](https://en.wikipedia.org/wiki/Difference_engine#:~:text=The%20difference%20engine%20and%20printer,and%20weighs%20about%205%20tons)

TL

GM’s Tech Level Era Modifier. The GM can apply a x0.3 to x3 modifier to the compute represent what is available in the early and later of a Tech Level. This often doesnt apply to costs represents availability.

Cheap. the Cost is x0.5 and Compute is x0.5

Very Cheap. The Cost x0.2 and Compute is x0.2

Advanced. Cost is x3 but the compute is x1.5

Very Advanced. Cost is x10 but the compute is x2

Cutting Edge. Cost is x30 but the compute is x3

Bleeding Edge. Cost is x100 but the compute is x5.

Smaller. Cost is Same, Mass is x0.5 and the Compute is x0.8

Combining Computers. Aggregating computers doesnt yield a linear increase of compute. Instead it has a very minor incremental increase. It takes 1000 computers with the average same compute to have a x10 increase in compute.

TC = M \* C \* log\_1.00995(Q + 1)

Where:

* TC is the Total Compute
* C is the Compute of one computer, which is determined by the Tech Level (1 for TL6, 10 for TL7, 100 for TL8, and so on)
* Q is the quantity of computers

Sure, let's assume that each individual computer has a Compute of 1. Using the formula Total Compute = Compute \* log\_1.00995(Qty + 1), here's a table showing the total Compute for different quantities of computers:

| **Qty of Computers** | **Total Compute** |
| --- | --- |
| 1 | 1.00 |
| 3 | 1.30x |
| 10 | 2.15 |
| 30 | 3.61x |
| 100 | 6.02x |
| 300 | 8.43x |
| 1000 | 10.00x |

These values are rounded to two decimal places. As you can see, the total Compute increases as you add more computers, but the rate of increase slows down due to the logarithmic scale. When you have 1000 computers, the total Compute is 10 times the Compute of a single computer, as desired.

Average Compute Power. Compute Power is equal the TL-6. C

Every 10^(TL-6).

Computing

### 

| **Modifiers** | COMPUTE | **Mass** | **Cost** | **Capabilites** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
| Portability | x0.8 | x0.5 | x1 | This is a cumulative modifier. The GM sets the amount of portability allowed. Shrinking the computer progressively |
| Cheap | x0.5 |  | x0.5 |  |
| Very Cheap | x0.2 |  | x0.2 |  |
| Advanced | x1.5 |  | x3 |  |
| Very Advanced | x2 |  | x10 |  |
| Cutting Edge | x3 |  | x30 |  |
| Bleeding Edge | x5 |  | x100 | On a roll, without modifiers, of 2 and on a failure effect of 5+ this system breaks and requires the fail effect of mandays to repair as well a successful Computer Skill roll against TN 3 plus Fail effect.  When it crashes it aborts any work it is doing. |

### Tech Level Compute Table

|  | **CE TL** | **MTL** | **COMPUTE** | **Mass** | **Cost** | **Capabilities** |
| --- | --- | --- | --- | --- | --- | --- |
| 10,000-5,001 BCE | 0 | 0 |  |  |  |  |
| 5,000-499 BCE | 1 | 01 |  |  |  |  |
| 500-1 BCE | 1.3 | 02 |  |  |  |  |
| 0-1499 CE | 1.7 | 03 | 1x(10^-3) |  |  |  |
| 1500-1799 CE | 2 | 04 | 1x(10^-2) |  |  |  |
| 1800-1899 CE | 3 | 05 | 1x(10^-1) |  |  |  |
| 1900-1929 CE | 4 | 5.5 | 1x(10^-1) |  |  |  |
| 1920-1949 CE | 5 | 06 | 1 compute. 1x(10^0) | 10kg |  |  |
| 1950-1999 CE | 6 | 07 | 1x(10^1) | 10kg | 1 KCr |  |
| 2000-2049 CE | 6.5 | 08 | 1x(10^2) | 10kg | 5 KCr |  |
| 2050-2099 CE | 7 | 09 | 1x(10^3) | 10kg | 10 KCr |  |
| 2100-2199 CE | 8 | 10 | 1x(10^4) | 10kg | 100 KCr |  |
| 2200-2299 CE | 8.5 | 11 | 1x(10^5) | 10kg | 1 MCr |  |
| 2300-2399 CE | 9 | 12 | 1x(10^6) | 10kg | 2 MCr |  |
| 2400-2499 CE | 9.5 | 13 | 1x(10^7) | 10kg | 5 MCr |  |
| 2500-2599 CE | 10 | 14 | 1x(10^8) | 10kg | 10 MCr |  |
| 2600-2699 CE | 10.5 | 15 | 1x(10^9) | 10kg | 20 MCr |  |
| 2700-2799 CE | 11 | 16 | 1x(10^10) | 10kg | 50 MCr |  |

### Cost of Living Table

| **ERA** | **CE TL** | **MTL** | **POOR (SOC-2)** | **LOWER INCOME (SOC-1)** | **MIDDLE CLASS (SOC-0)** | **UPPER INCOME (SOC+1)** | **WEALTHY (SOC+2)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 10,000-5,001 BCE | 0 | 0 | 1 Cr | 3 Cr | 6 Cr | 12 Cr | 30 Cr |
| 5,000-499 BCE | 1 | 1 | 2 Cr | 6 Cr | 12 Cr | 24 Cr | 60 Cr |
| 500-1 BCE | 1.3 | 2 | 10 Cr | 30 Cr | 60 Cr | 120 Cr | 300 Cr |
| 0-1499 CE | 1.7 | 3 | 20 Cr | 60 Cr | 120 Cr | 240 Cr | 600 Cr |
| 1500-1799 CE | 2 | 4 | 50 Cr | 150 Cr | 300 Cr | 600 Cr | 1,500 Cr |
| 1800-1899 CE | 3 | 5 | 100 Cr | 300 Cr | 600 Cr | 1,200 Cr | 3,000 Cr |
| 1900-1929 CE | 4 | 5.5 | 200 Cr | 600 Cr | 1,200 Cr | 2,400 Cr | 6,000 Cr |
| 1920-1949 CE | 5 | 6 | 400 Cr | 1,200 Cr | 2,400 Cr | 4,800 Cr | 12,000 Cr |
| 1950-1999 CE | 6 | 7 | 2,000 Cr | 5,000 Cr | 10,000 Cr | 20,000 Cr | 50,000 Cr |
| 2000-2049 CE | 6.5 | 8 | 4,000 Cr | 10,000 Cr | 20,000 Cr | 40,000 Cr | 100,000 Cr |
| 2050-2099 CE | 7 | 9 | 8,000 Cr | 20,000 Cr | 40,000 Cr | 80,000 Cr | 200,000 Cr |
| 2100-2199 CE | 8 | 10 | 16,000 Cr | 40,000 Cr | 80,000 Cr | 160,000 Cr | 400,000 Cr |
| 2200-2299 CE | 8.5 | 11 | 32,000 Cr | 80,000 Cr | 160,000 Cr | 320,000 Cr | 800,000 Cr |
| 2300-2399 CE | 9 | 12 | 64,000 Cr | 160,000 Cr | 320,000 Cr | 640,000 Cr | 1,600,000 Cr |
| 2400-2499 CE | 9.5 | 13 | 128,000 Cr | 320,000 Cr | 640,000 Cr | 1,280,000 Cr | 3,200,000 Cr |
| 2500-2599 CE | 10 | 14 | 256,000 Cr | 640,000 Cr | 1,280,000 Cr | 2,560,000 Cr | 6,400,000 Cr |
| 2600-2699 CE | 10.5 | 15 | 512,000 Cr | 1,280,000 Cr | 2,560,000 Cr | 5,120,000 Cr | 12,800,000 Cr |
| 2700-2799 CE | 11 | 16 | 1,024,000 Cr | 2,560,000 Cr | 5,120,000 Cr | 10,240,000 Cr | 25,600,000 Cr |

1. [1900s (decade) - Wikipedia](https://en.wikipedia.org/wiki/1900s_(decade)), [1910s - Wikipedia](https://en.wikipedia.org/wiki/1910s), [↑](#footnote-ref-0)
2. [1920s - Wikipedia](https://en.wikipedia.org/wiki/1920s#Economics), [1930s - Wikipedia](https://en.wikipedia.org/wiki/1930s#Science_and_technology), [1940s - Wikipedia](https://en.wikipedia.org/wiki/1940s#Technology), [↑](#footnote-ref-1)
3. [1950s - Wikipedia](https://en.wikipedia.org/wiki/1950s#Technology), [1960s - Wikipedia](https://en.wikipedia.org/wiki/1960s#Science_and_technology), [1970s - Wikipedia](https://en.wikipedia.org/wiki/1970s#Science_and_technology), [1980s - Wikipedia](https://en.wikipedia.org/wiki/1980s#Technology), [1990s - Wikipedia](https://en.wikipedia.org/wiki/1990s#Technology_and_science) [↑](#footnote-ref-2)