

UNIT 1 *Indices*

Overhead Slides

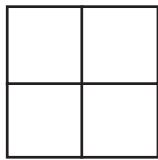
Overhead Slides

- 1.1 Square, Cube, Square Roots, Cube Roots
- 1.2 Time Scale
- 1.3 Space Scale
- 1.4 Multiples

OS 1.1*Squares, Cubes, Square Roots, Cube Roots***1**

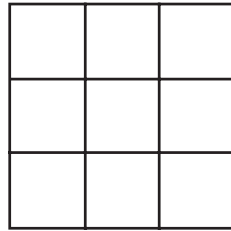
(1×1)

1^2

**4**

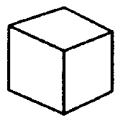
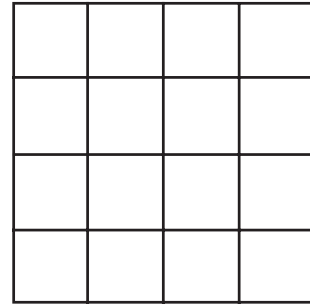
(2×2)

2^2

**9**

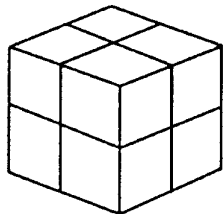
(3×3)

3^2

**1**

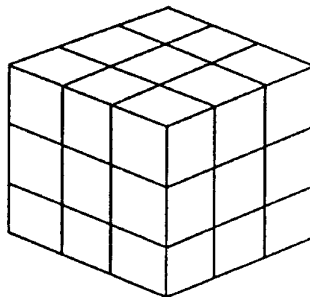
$(1 \times 1 \times 1)$

1^3

**8**

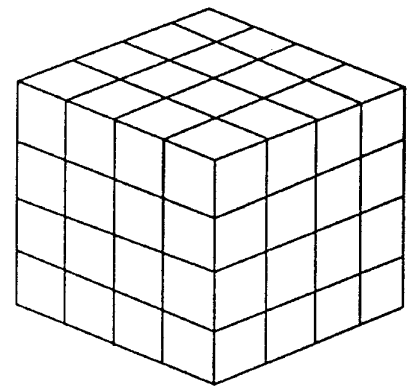
$(2 \times 2 \times 2)$

2^3

**27**

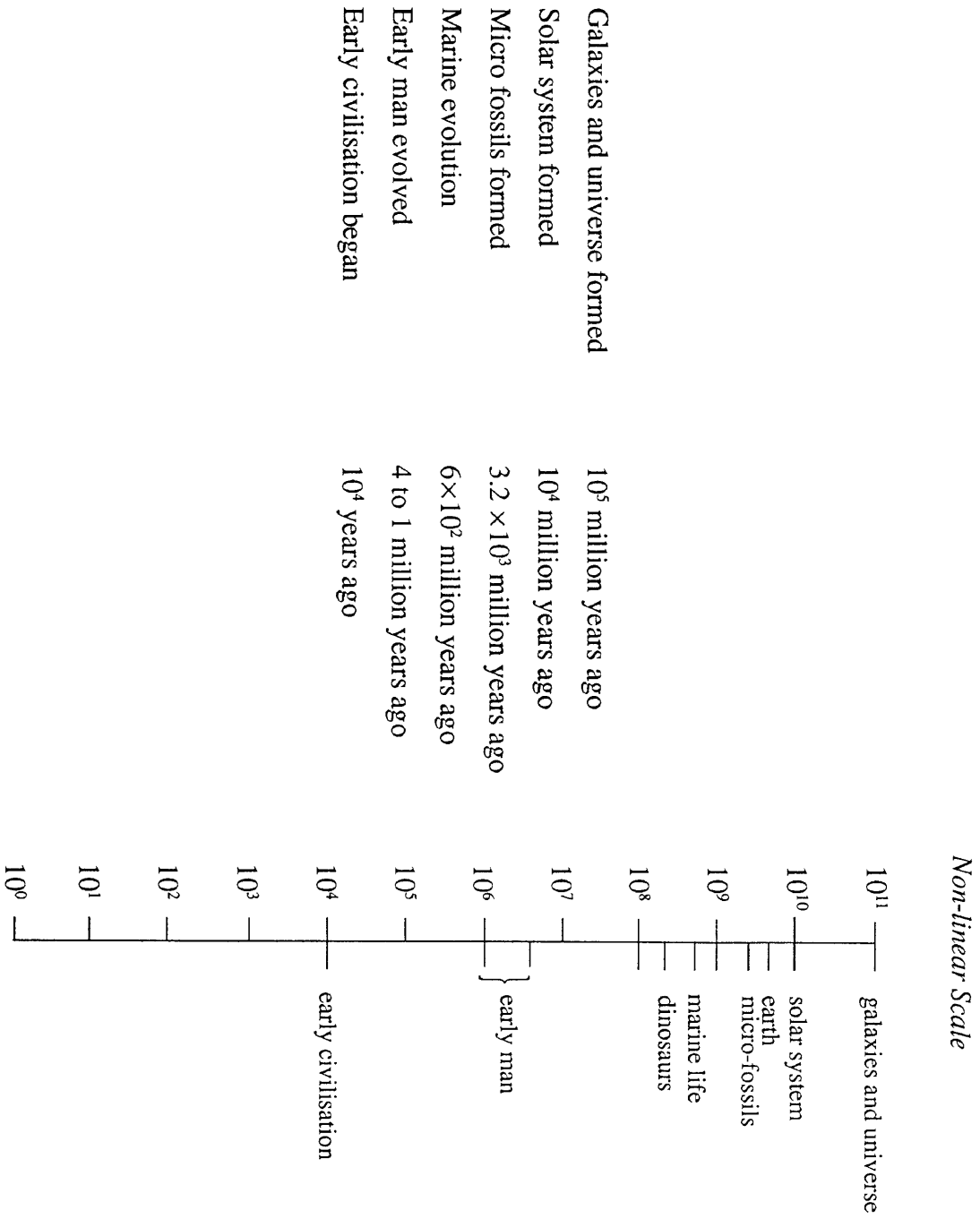
$(3 \times 3 \times 3)$

3^3



OS 1.2

Time Scale



OS 1.3

Space Scale

Radius of visible universe	10^{23} km
Distance of nearest galaxy	10^{19} km
Distance of nearest star	10^{14} km
Distance of sun	1.5×10^8 km
Distance of moon	4.0×10^5 km
Highest mountains on earth	8.8 km
Human dimensions	2 m
Atomic radius	10^{-8} km
Nuclear radius	10^{-13} km

OS 1.4*Multiples*

Prefix	Abbreviation	Multiple
mega	M	10^6
kilo	k	10^3

deci	d	10^{-1}
centi	c	10^{-2}
milli	m	10^{-3}
micro	μ	10^{-6}
nano	n	10^{-9}