

Table 8: Astronomical Constants

Standard gravitational acceleration	5.5A54_B	(12)	m_u/s_u^2	
Standard atmosphere	165.0086	$\times 10^2_{(12)}$	P_u	
Earth's geoid potential	0.3719_A81	$\times 10^8_{(12)}$	m_u^2/s_u^2	(square of the escape velocity)
Earth escape velocity	0.669B_3217	$\times 10^4_{(12)}$	m_u/s_u	(square root of the potential)
Gravitational radius of the earth	241.B898_22	$\times 10^{-4}_{(12)}$	m_u	(including the atmosphere)
Equatorial radius of the earth	7A2.4AAB	$\times 10^4_{(12)}$	m_u	
Astronomical unit	8A6.7575_4	$\times 10^8_{(12)}$	m_u	(distance of the sun)
Mean sun day	A8.14A7_261	$\times 10^3_{(12)}$	s_u	
Tropical year	0.230B_59A6_37	$\times 10^8_{(12)}$	s_u	
Universal century	10.0513_16A2_8	$\times 10^8_{(12)}$	s_u	(64 years)
Gravitational radius of the moon	4.1A76_416	$\times 10^{-4}_{(12)}$	m_u	
Equatorial radius of the moon	218.04	$\times 10^4_{(12)}$	m_u	
Mean distance of the moon	3.3513_B	$\times 10^8_{(12)}$	m_u	
Synodical month	222B.AB7A	(12)	clock	
Nodical month	2023.1B61	(12)	clock	
Gravitational radius of the sun	3182.870A_56	(12)	m_u	
Equatorial radius of the sun	5.B475	$\times 10^8_{(12)}$	m_u	
Radiation of the sun	25.57	$\times 10^{20}_{(12)}$	W_u	
Luminous intensity of the sun	0.40	$\times 10^{20}_{(12)}$	W_u/rad^2	
Sun constant	435.1B	(12)	W_u/m_u^2	
Luminance of a magnitude 5 star	1	$\times 10^{-4}_{(12)}$	W_u/m_u^2	
Universe expansion constant	5.3~7.0	$\times 10^{14}_{(12)}$	s_u	(inverse of the Hubble constant)