Information Table

Scenario	Stellar Radius (meters)	Stellar Mass (kilogram)	Force of Gravity (Newtons)	Luminosity of the Star (Watts)	Gravitational Constant, G $m^3 / kg * s^2$
1	1×10^9	2.2×10^{30}	5.3×10^{24}	7.6×10^{26}	6.67×10^{-11}
2	6.9×10^8	2×10^{30}	3.5×10^{22}	3.8×10^{26}	6.67×10^{-11}
3	8.2×10^7	1.8×10^{29}	2.7×10^{24}	3.8×10^{22}	6.67×10^{-11}
4	1×10^8	2.4×10^{29}	1.5×10^{23}	6×10^{23}	6.67×10^{-11}
5	1.4×10^9	2.9×10^{30}	5.6×10^{27}	2.5×10^{27}	6.67×10^{-11}

Data Collection Table

Scenario	Orbital Period (Earth Days)	Orbital Period (seconds)	ΔL, Change in Brightness	Planet Radius (meters) (range 10^6 to 10^9)	Orbital Radius (meters)	Planet Mass (kilograms)	Planet Temperature (Kelvin)	Habitable [Y/N]?
1	3.2	2.76×10^5	0.000000001	2.5×10^7	6.60×10^9	1.57×10^{24}	5912	
2	363	3.24×10^7	0.00007	5.8×10^6	1.53×10^{11}	6.1×10^{24}	287	
3	5.94	5.13×10^5	0.011	$8.6. \times 10^6$	4.40×10^9	4.36×10^{24}	635	
4	365.7	3.16×10^7	0.011	1.05×10^7	7.56×10^{10}	5.48×10^{25}	293	
5	6.9	5.96×10^5	0.011	1.47×10^8	1.23×10^{10}	$4 38 \times 10^{27}$	5831	