



Research Paper

## Relation Between Solar Activity Periods & Planetary Orbits:

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Sun's solar activity follows three type of periodic cycles-

1. Solar activity cycle of average 11 years (called Schwabe cycle).
2. Sunspot cycle of average 95.115 days.
3. Solar flare cycle of average 112 days.

Various planets orbit around sun in accordance to above three cycles, as below:

Planet	Orbital period (Days)	Relation to cycle
1. Mercury	87.969	137 orbits in $3 \times 11$ years
2. Venus	224.701	1 orbit in $2 \times 112$ days
3. Earth	365.242	25 orbits in $96 \times 95.115$ days
4. Mars	686.980	9 orbits in $65 \times 95.115$ days
5. Ceres	1680.8	1 orbit in $15 \times 112$ days
6. Jupiter	4332.59	101 orbits in $4600 \times 95.115$ days
7. Saturn	10759.22	100 orbits in $101 \times 112 \times 95.115$ days
8. Uranus	30688.5	1 orbit in $274 \times 112$ days
9. Neptune	60195	177 orbits in $1000 \times 112 \times 95.115$ days
10. Pluto	90560	2 orbit in $17 \times 112 \times 95.115$ days
11. Eris	204199	6 orbits in $115 \times 112 \times 195.115$ days
12. Moon	29.5306	34 lunar years in $3 \times 11$ years
13. Lunar Node	6798.4	13 orbits in $22 \times 11$ years

It is clear from the above table that planets are orbiting in resonance with solar activity periodicities.

**Conclusion-**

The planetary orbital periods are derivative of solar activity periods.