

# HARMONICS TO PLUTO

**ALL WITHIN .5 PERCENT UNLESS MARKED BLACK**

- 1. Self ODR – farthest distance from sun over closest covers more than a perfect 5 th**  
**1.6671754440593485513**

MAJOR 6 TH WITHIN .1 PERCENT

- 2. Solar Day**

Earth PLANET → 1.5969200006023574405

Saturn PLANET → 1.7982186104775196018

- 3. Year Length**

Eris 1.1231560966498290181

Neptune PLANET → 1.5044521155604554898

- 4. Mass**

none

- 5. Angular Momentum**

Mars → **1.9995978908170302963**

- 6. Radius**

Uranus PLANET → **1.3322373028545816707**

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Solar Day LENGTHS

Earth → 1.5969200006023574405`6.743152803560701

Saturn → 1.7982186104775196018`4.9926358193285445,

```
In[1]:= 2^FractionalPart[Log[2, Entity["MinorPlanet", "Pluto"]["SolarDay"] /
      EntityValue["Planet", "SolarDay", "EntityAssociation"]]]
```

```
Out[1]= <| Mercury → 0.58090, Venus → 0.875397, Earth → 1.596920, Mars → 1.554193,
      Jupiter → 1.9306, Saturn → 1.7982, Uranus → 1.1116, Neptune → 1.1895 |>
```

```
In[4]:= 2^FractionalPart[Log[2, EntityValue["Planet", "SolarDay", "EntityAssociation"] /
      Entity["MinorPlanet", "Pluto"]["SolarDay"]]]
```

```
Out[4]= <| Mercury → 1.72147, Venus → 1.142339, Earth → 0.626205, Mars → 0.643421,
      Jupiter → 0.51797, Saturn → 0.55611, Uranus → 0.89962, Neptune → 0.84069 |>
```

```
In[5]:= 2^FractionalPart[Log[2, Entity["MinorPlanet", "Pluto"]["SolarDay"] /
      Entity["MinorPlanet", "Ceres"]["SolarDay"]]]
```

```
Out[5]= 1.056
```

```
In[6]:= 2^FractionalPart[Log[2, Entity["MinorPlanet", "Pluto"]["SolarDay"] /
      Entity["MinorPlanet", "Eris"]["SolarDay"]]]
```

```
Out[6]= 1.48
```

## HARMONICS TO PLUTO

### YEAR LENGTHS

Eris 1.1231560966498290181

Neptune → 1.5044521155604554898

.52 percent

Mercury → 1.0052452857590533752

```
In[7]:= 2^FractionalPart[Log[2, Entity["MinorPlanet", "Pluto"]["OrbitPeriod"] /
      EntityValue["Planet", "OrbitPeriod", "EntityAssociation"]]]
```

```
Out[7]= <| Mercury → 1.005245, Venus → 1.5741943, Earth → 1.9368464, Mars → 1.0297911,
      Jupiter → 1.3062078, Saturn → 1.0523842, Uranus → 1.4754223, Neptune → 1.5044521 |>
```

```
In[8]:= 2^FractionalPart[Log[2, Entity["MinorPlanet", "Pluto"]["OrbitPeriod"] /
      Entity["MinorPlanet", "Ceres"]["OrbitPeriod"]]]
```

```
Out[8]= 1.6841723
```

```
In[9]:= 2^FractionalPart[Log[2, Entity["MinorPlanet", "Eris"]["OrbitPeriod"] /
      Entity["MinorPlanet", "Pluto"]["OrbitPeriod"]]]
```

```
Out[9]= 1.1232
```

```
In[10]:= 2^FractionalPart[Log[2,
      Entity["MinorPlanet", "Pluto"]["OrbitPeriod"] / Moon PLANETARY MOON ["OrbitPeriod"]]]
```

```
Out[10]= 1.6183
```

```
In[ ]:= my = 2^FractionalPart[Log[2,
      EntityValue["Planet", "OrbitPeriod"] / Entity["Planet", "Mercury"]["OrbitPeriod"]]]
```

```
Out[ ]:= {1.000000, 1.277155, 1.038023, 1.952329, 1.539181, 1.910415, 1.362654, 1.336361}
```

```
In[ ]:= MatrixForm[%]
```

```
Out[ ]//MatrixForm=
```

$$\begin{pmatrix} 1.000000 \\ 1.277155 \\ 1.038023 \\ 1.952329 \\ 1.539181 \\ 1.910415 \\ 1.362654 \\ 1.336361 \end{pmatrix}$$

```
In[ ]:= Export["mercyear.xls", my, "XLS"]
```

```
Out[ ]:= mercyear.xls
```

```
In[ ]:= SystemOpen["mercyear.xls"]
```

#### HARMONICS OF FARTHEST PT OVER NEAREST TO SUN FOR EACH PLANET

```
In[ ]:= 2^FractionalPart[Log[2, EntityValue["Planet", "Aphelion", "EntityAssociation"] /
      EntityValue["Planet", "Perihelion", "EntityAssociation"]]]
```

```
Out[ ]:= <| Mercury → 1.5177206, Venus → 1.0136388, Earth → 1.03398839, Mars → 1.20607457,
      Jupiter → 1.10170720, Saturn → 1.114502, Uranus → 1.09900527, Neptune → 1.0173205 |>
```

```
In[ ]:= Entity["MinorPlanet", "Ceres"]["Aphelion"] / Entity["MinorPlanet", "Ceres"]["Perihelion"]
```

```
Out[ ]:= 1.1733465
```

```
In[ ]:= Entity["MinorPlanet", "Pluto"]["Aphelion"] / Entity["MinorPlanet", "Pluto"]["Perihelion"]
```

```
Out[ ]:= 1.67
```

```
In[ ]:= Entity["MinorPlanet", "Eris"]["Aphelion"] / Entity["MinorPlanet", "Eris"]["Perihelion"]
```

```
In[ ]:= 2.5847131940170787205^4.087973628208405 / 2
```

```
Out[ ]:= 1.292
```

```
In[ ]:= Moon PLANETARY MOON ["Aphelion"] / Moon PLANETARY MOON ["Perihelion"]  
Out[ ]:=  
Missing[UnknownProperty, {PlanetaryMoon, Aphelion}]  
Missing[UnknownProperty, {PlanetaryMoon, Perihelion}]
```

HARMONICS TO Pluto

MASS

Moon 1.403

```
In[11]:= 2^FractionalPart[Log[2, EntityValue["Planet", "Mass", "EntityAssociation"] /
      Entity["MinorPlanet", "Pluto"]["Mass"]]]
```

```
Out[11]= <| Mercury → 1.576, Venus → 1.453, Earth → 1.782, Mars → 1.532,
      Jupiter → 1.106, Saturn → 1.325, Uranus → 1.619, Neptune → 1.910 |>
```

```
In[16]:= 2^FractionalPart[
      Log[2, Entity["MinorPlanet", "Eris"]["Mass"] / Entity["MinorPlanet", "Pluto"]["Mass"]]]
```

```
Out[16]= 1.28
```

```
In[18]:= 2^FractionalPart[
      Log[2, Entity["MinorPlanet", "Pluto"]["Mass"] / Entity["MinorPlanet", "Ceres"]["Mass"]]]
```

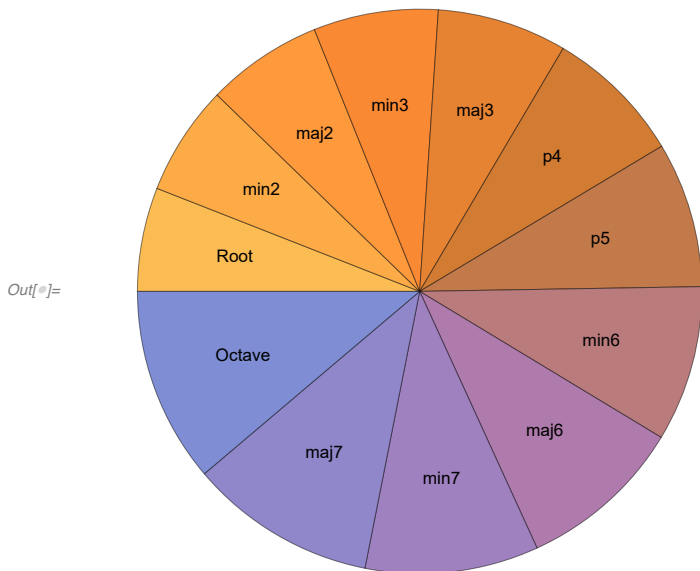
```
Out[18]= 1.73
```

```
In[25]:= 2^FractionalPart[
      Log[2, Moon PLANETARY MOON ["Mass"] / Entity["MinorPlanet", "Pluto"]["Mass"]]]
```

```
Out[25]= 1.403
```

---

```
In[ ]:= PieChart[{1, 1.06, 1.12, 1.2, 1.25, 1.33, 1.4, 1.5, 1.6, 1.67, 1.8, 1.88},
  ChartLabels -> {"Root", "min2", "maj2", "min3", "maj3",
    "p4", "p5", "min6", "maj6", "min7", "maj7", "Octave"}]
```



-----  
 PLUTO ANG MOM

# radius

**Uranus** → 1.3322373028545816707`3.6318680781268857,

```
2^FractionalPart[Log[2, EntityValue["Planet", "Radius", "EntityAssociation"] /
  Entity["MinorPlanet", "Pluto"]["Radius"]]]
```

Out[26]= radius

Out[27]= { Mercury → 1.025, Venus → 1.271, Earth → 1.3386, Mars → 1.4243,  
 Jupiter → 1.837, Saturn → 1.531, Uranus → 1.332, Neptune → 1.29 }

```
In[29]:= 2^FractionalPart[Log[2,
      Entity["MinorPlanet", "Pluto"]["Radius"] / Entity["MinorPlanet", "Ceres"]["Radius"]]]
```

```
Out[29]= 1.266
```

```
In[30]:= 2^FractionalPart[Log[2,
      Entity["MinorPlanet", "Pluto"]["Radius"] / Entity["MinorPlanet", "Eris"]["Radius"]]]
```

```
Out[30]= 1.023
```

-----  
**Pluto Ang Momentum**

**Mars 1.9995978908170302963 !!!**

**Earth n Eris 1.21, Venus n Neptune 1.34**

**1.2141630505772930814`2.6344790570716348,**

```
In[31]:= 2^FractionalPart[Log[2, angP / angMom]]
```

```
Out[31]= {0.70, 0.746, 1.21, 0.500, 1.46, 0.517, 0.579, 0.774, 0.74, 1.000, 1.21}
```

```
In[31]:= 2^FractionalPart[Log[2, angMom / angP]]
```

```
Out[31]= 2^FractionalPart[Log[2,
      angMom / angP]]
```

```
{1.4258151956068252948`2.7243136947796978,
 1.31412730718034348503`3.058151605713281, 0.8236126107811748493`2.6344790570716348,
 1.9995978908170302963`3.506666735024252, 0.6845773454812305036`2.6835943405351816,
 1.9337492707033028333`3.4144287246730443, 1.7273851419212086983`3.3793804274243735,
 1.2926375580129250832`3.1739893865874693, 1.2141630505772930814`2.6344790570716348,
 1.`3.619171778080672, 0.8236126107811748493`2.6344790570716348}
```