

## Data Used by Kepler (1618)

Planet	Mean distance* R (AU)	Period T (days)	$R^3/T^2$ $10^{-6}(\text{AU})^3/(\text{day})^2$
Mercury	0.389	87.77	7.64
Venus	0.724	224.70	7.52
Earth	1.000	365.25	7.50
Mars	1.524	686.98	7.50
Jupiter	5.200	4,332.62	7.49
Saturn	9.510	10,759.20	7.43

\* mean distance to the sun; 1 AU  $\approx$  150 million km.

*"I first believed I was dreaming . . . . . But it is absolutely certain and exact that the ratio which exists between the periodic times of any two planets is precisely the ratio of the 3/2<sup>th</sup> power of the mean distance."*

Quote (translated) from "The Harmonies of the World" by Kepler (1619)