

Real and Scaled Sizes of the Sun and Planets

| | Real Diameter | Scaled Diameter (About) | Earth Diameters (About) |
|----------------|----------------------|------------------------------------|------------------------------------|
| Sun | 1,392,000 km | 14 cm | 109 |
| Mercury | 4,878 km | $\frac{1}{20}$ cm | $\frac{2}{5}$ |
| Venus | 12,104 km | A bit more than $\frac{1}{10}$ cm | 1 |
| Earth | 12,756 km | A bit more than $\frac{1}{10}$ cm | 1 |
| Mars | 6,794 km | A bit less than $\frac{1}{10}$ cm | $\frac{1}{2}$ |
| Jupiter | 142,796 km | A bit more than 1 cm | 11 |
| Saturn | 120,660 km | A bit more than 1 cm | 9 |
| Uranus | 51,118 km | $\frac{1}{2}$ cm | 4 |
| Neptune | 49,523 km | $\frac{1}{2}$ cm | 4 |
| Pluto | 2,300 km | $\frac{1}{50}$ cm | $\frac{1}{5}$ |

The *scale factor* is 1 to 10 billion. Every centimeter in this scale model solar system represents 10 billion centimeters in the real solar system!