

Name _____ Period _____

Scale Model of the Solar System

Name	Actual Size (Diameter) (km)	Scale Size (mm)	Actual average distance from Sun (km)	Scale Distance from Sun (m)
Sun		500	-----	-----
Mercury				
Venus				
Earth				
Mars				
Asteroid Belt	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX
Jupiter				
Saturn				
Uranus				
Neptune				

How to find the constant:

1. Choose a size in millimeters for the diameter of the sun 500
2. Multiply this number by 1,000 _____
3. Divide this number by the actual diameter of the sun in kilometers _____ **The Constant**

How to find the scale size of a planet:

Multiply the actual diameter of the planet in kilometers by the constant, and then divide by 1000.

Example: If a planet is 10,000 kilometers in diameter, you multiply 10,000 x the constant and then divide by 1000.

This is how many millimeters in diameter your planet would be in your scale model.

How to find the scale distance of a planet:

Find the average distance from the sun in millions of kilometers and multiply it by the constant.

Example: If a planet is 58 million kilometers from the sun then you would multiply 58 x the constant and that is how many meters away from the sun would be in your solar system scale model.

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Reflection:

<https://nssdc.gsfc.nasa.gov/planetary/factsheet/>