Space
KS3
Wednesday - Maths

Use these statements to work out the distance from the sun (km) and mass (kg). Record these in the table. All your answers should be in standard form.

Planet	Distance from Sun (km)	Mass (kg)
Mercury		
Venus		
Earth		
Mars		
Jupiter		
Saturn		
Uranus		
Neptune		
Pluto		

1. Mercury is 58000000km from the sun.
2. Pluto is 100 times further from the sun than Mercury.
3. Earth is 150 million km from the sun.
4. Venus is 4×10^7 km closer to the sun than Earth.
5. Jupiter is 7.22×10^8 km further from the sun than Mercury.
6. Neptune is 30 times the distance from the sun compared to Earth.
7. Saturn is 1400×10^6 km from the sun.
8. Uranus is double the distance from the sun from that of Saturn.
9. Mars is 230000000km from the sun.
10. Pluto is the lightest planet yet has a mass of 1 followed by 22 zeros.
11. Neptune is 10^4 times heavier than pluto.
12. Jupiter, the biggest planet has mass $1.9 \times 10^{20} \times 10^7$.
13. You can calculate Saturn's mass by multiplying Jupiter's by 3×10^{-1}.
14. Mars has a mass of 3.3×10^{20} tonnes.
15. Earth has mass 600 times greater than Pluto.

16. Venus is 1.1 x 10^{24} kg lighter than Earth.
17. Mercury is 0.055 times the size of Earth.
18. Uranus is 8.636 x 10^{25} bigger than Mars.
19. 1000kg = 1 tonne.

Here is the volume of each planet. Can you calculate the density of each planet?

Mercury = 6.083 x 10^{10} km^3
Venus = 9.2843 x 10^{11} km^3
Earth = 1.08321 x 10^{12} km^3
Mars = 1.6318 x 10^{11} km^3
Jupiter = 1.43128 x 10^{15} km^3
Saturn = 8.2713 x 10^{15} km^3
Uranus = 6.833 x 10^{13} km^3
Neptune = 6.254 x 10^{13} km^3
Pluto = 7.15 x 10^{9} km^3