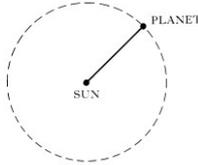


Standard Form

1. Each of these large oil containers holds 4.80×10^8 litres of the fuel. How many litres are there altogether in the full tanks shown ? Give your answer in scientific notation.  2 KU
2. A newspaper report stated "Concorde has now flown 7.1×10^7 miles This is equivalent to 300 journeys from the earth to the moon." Calculate the distance from the earth to the moon. Give your answer in **scientific notation correct to 2 significant figures.** 3 KU
3. The planet Mars is at a distance of 2.3×10^8 kilometres from the Sun. The speed of light is 3.0×10^5 km per second. How long does it take light from the Sun to reach Mars ? **Give your answer to the nearest minute.** 3 KU
4. A planet takes 88 days to travel round the Sun. The approximate path of the planet round the Sun is a circle with diameter 1.2×10^7 kilometres. Find the speed of the planet as it travels round the Sun.  **Give your answer in kilometres per hour, correct to 2 significant figures.** 4 KU
5. The mass of a proton is approximately 1.8×10^3 times greater than the mass of an electron. If the mass of an electron is 9.11×10^{-31} kg, calculate the mass of a proton. Give your answer in **scientific notation correct to 2 significant figures.** 2 KU
6. Large distances in space are measured in light years. A camera on a space telescope, photographs a galaxy, a distance of 50 million light years away. One light year is approximately 9.46×10^{12} kilometres. Calculate the distance of the galaxy from the space telescope in kilometres. **Give your answer in scientific notation** 2 KU
7. The annual profit (£) of a company was 3.2×10^9 for the year 1997. What profit did the company make per second. Give your answer to **three significant figures.** 2 KU
8. The total number of visitors to an exhibition was 2.925×10^7 . The exhibition was open each day from 5 June to 20 September **inclusive**. Calculate the average number of visitors per day to the exhibition. 3 KU
9. The mass of the sun is 2.2×10^{30} kilograms. The mass of the earth is 5.97×10^{24} kilograms. Express the mass of the earth as a percentage of the mass of the sun. Give your answer in **scientific notation.** 3 KU