

Answer on Question #82788 – Math – Algebra

Question

Asteroid 951 Gaspra has a mass of about $2,5 \cdot 10^{16}$ kg. Asteroid 2685 Masursky has a mass of about $9 \cdot 10^{15}$ kg. What is the difference in the mass of the two asteroids?

Solution

The difference of the mass of these asteroids we obtained from subtraction between a heavier asteroid and a lighter:

$$\begin{aligned} 2.5 \cdot 10^{16} kg - 9 \cdot 10^{15} kg &= 2.5 \cdot 10^{16} kg - 0.9 \cdot 10^{16} kg = (2.5 - 0.9) \cdot 10^{16} kg = \\ &= 1.6 \cdot 10^{16} kg \end{aligned}$$

Answer: $1.6 \cdot 10^{16} kg$.