Standard Form Using a Calculator

Using a calculator, work out the following, giving your answer in standard form.

(a)
$$(1.25 \times 10^5) + (3.4 \times 10^5)$$

(b)
$$(2.7 \times 10^{-4}) - (1.28 \times 10^{-5})$$

(c)
$$(3.87 \times 10^{-2}) \times (5.3 \times 10^{4})$$

(d)
$$\frac{4.152\times10^6}{1.73\times10^{-2}}$$

(e)
$$(7.3 \times 10^{-2})^2$$

(f)
$$\sqrt{(3.6 \times 10^{11})}$$

- (a) Given that F=ma, find F when $m=1.2\times 10^{-12}~g$ and $a=4.5\times 10^9 m/s^2$.
- (b) Denmark has a population of 5.36×10^6 and Jamaica has a population of 2.56×10^6 . How many more people live in Denmark than in Jamaica?
- (a) The mass of Saturn is 5.686×10^{26} tonnes and the mass of the Earth is 6.04×10^{21} tonnes. How many times heavier is Saturn than Earth?
- (b) In 2009 the world population was 6.77×10^9 . In 2019 it was 7.73×10^9 . Calculate the percentage increase in population between 2009 and 2019.
- (a) The population of Wales is 3.14×10^6 people. The annual spend on healthcare is £8 billion. Calculate the amount spent on healthcare per person in Wales each year, to the nearest pound.
- (b) The volume of four different oceans in km^3 are $1.88\times 10^7,\ 3.1\times 10^8,\ 2.64\times 10^8$ and $7.18\times 10^7.$ Find the mean volume of the four oceans, giving your answer in standard form.

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