## Standard Form Using a Calculator

Using a calculator, work out the following, giving your answer in standard form.
(a) $\left(1.25 \times 10^{5}\right)+\left(3.4 \times 10^{5}\right)$
(b) $\left(2.7 \times 10^{-4}\right)-\left(1.28 \times 10^{-5}\right)$
(c) $\left(3.87 \times 10^{-2}\right) \times\left(5.3 \times 10^{4}\right)$
(d) $\frac{4.152 \times 10^{6}}{1.73 \times 10^{-2}}$
(e) $\left(7.3 \times 10^{-2}\right)^{2}$
(f) $\sqrt{\left(3.6 \times 10^{11}\right)}$
(a) Given that $F=m a$, find $F$ when $m=1.2 \times 10^{-12} g$ and $a=4.5 \times$ $10^{9} \mathrm{~m} / \mathrm{s}^{2}$.
(b) Denmark has a population of $5.36 \times$ $10^{6}$ and Jamaica has a population of $2.56 \times 10^{6}$. How many more people live in Denmark than in Jamaica?
(a) The mass of Saturn is $5.686 \times$ $10^{26}$ tonnes and the mass of the Earth is $6.04 \times 10^{21}$ tonnes. How many times heavier is Saturn than Earth?
(b) In 2009 the world population was
$6.77 \times 10^{9}$. In 2019 it was $7.73 \times$ $10^{9}$. Calculate the percentage increase in population between 2009 and 2019.
(a) The population of Wales is $3.14 \times 10^{6}$ 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 $\mathrm{km}^{3}$ 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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