



1 Calculate the relative formula mass (M_r) of each of the following substances.

- a CO_2
- b Mg
- c sodium oxide
- d calcium nitrate

2 Calculate the mass in grams of one atom of ^{19}F . Give your answer in standard form to 3 significant figures.
(the Avogadro constant = $6.022 \times 10^{23} \text{ mol}^{-1}$)

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3 One molecule of water has a mass of $2.99 \times 10^{-23} \text{ g}$. Use this to calculate the mass in grams of two moles of water molecules.
(the Avogadro constant = $6.022 \times 10^{23} \text{ mol}^{-1}$)

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