

Question 26 (5 marks)

Water can be described as either ‘hard’ or ‘soft’.

- (a) Describe a test you have used to determine whether a given sample of water is ‘hard’ or ‘soft’. **2**

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- (b) A sample of hard water contains $6 \times 10^{-4} \text{ mol L}^{-1}$ of magnesium carbonate. **3**

Calculate the mass, in mg, of magnesium carbonate in 150 mL of this sample.

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