Reading an Element From Two Ion Ratios

Scoring guide · one credit per question · review written work against each rubric

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Question 1

In P the 12 chloride ions contribute −12, so six metal ions contribute +12 and each is +2. In Q six oxide ions contribute −12, again giving +2 per metal ion.

Question 2

Choice (2)

Both solids imply a +2 metal ion. Among the candidates only magnesium, in Group 2, forms the stated +2 ion.

Question 3

Each oxide ion carries −2. A one-to-one ratio requires each metal ion to carry +2 to balance it. The count ratio does not give the charge magnitude by itself.

Question 4

Three +2 ions supply +6 and two −3 ions supply −6. The smallest neutral ratio is 3:2.