# Finding Redox Without a Wire Reading

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

### Finding Redox Without a Wire Reading

---

### Question 1

Choice (1)

$Fe^{2+}$ loses one electron to become $Fe^{3+}$. Loss of electrons is oxidation.

---

### Question 2

The four units of $Fe^{3+}$ represent four units of electrons lost, one per Fe. The four units of $Ce^{3+}$ represent the same amount gained, one per Ce.

---

### Question 3

Both product changes require electron transfer under the stated model. Directly mixed ions exchange electrons without sending them through the external wire, so the meter does not record them.

---

### Question 4

It cannot form them through the stated model reaction. Neither direct contact nor the connected wire provides a path for the electron transfer in this setup.