Answer on Question # 51883 Chemistry Other

In the reaction of potassium permanganate and iron salt in acidic medium, how many moles of manganese reacted with iron?

2 moles of Mn with 1 mole of Fe

1 mole of Mn with 5 moles of Fe

1 mole of Mn reacts with 1 mole of Fe

5 moles of Mn reacts with 1 mole

Solution

1
$$MnO_4^- + 8H^+ + 5 e = Mn^{2+} + 4H_2O$$

5
$$Fe^{2+} - 1e = Fe^{3+}$$

Answer: 1 mole of Mn with 5 moles of Fe