

CHAPTER 7	Qualitative Analysis Questions	BLM 7.1.5
ASSESSMENT		

1. The transition metal with a blue colour in solution and a blue flame color is \_\_\_\_\_.
2. How could you tell the difference between the following solutions by looking at them?
  - (a)  $\text{FeCl}_3(\text{aq})$  and  $\text{FeCl}_2(\text{aq})$
  - (b)  $\text{Cr}(\text{NO}_3)_3(\text{aq})$  and  $\text{Cr}(\text{NO}_3)_2(\text{aq})$
  - (c)  $\text{K}_2\text{Cr}_2\text{O}_7(\text{aq})$  and  $\text{K}_2\text{CrO}_4(\text{aq})$
  - (d)  $\text{MnCl}_2(\text{aq})$  and  $\text{KMnO}_4(\text{aq})$
3. What solution could you choose in each case to distinguish between each of the pairs of solutions given by using precipitation?
  - (a)  $\text{Sr}(\text{NO}_3)_2(\text{aq})$  and  $\text{Ca}(\text{NO}_3)_2(\text{aq})$
  - (b)  $\text{NaNO}_3(\text{aq})$  and  $\text{Ca}(\text{NO}_3)_2(\text{aq})$
  - (c)  $\text{AgClO}_3(\text{aq})$  and  $\text{NaClO}_3(\text{aq})$
4. How many colours could you make fireworks if you had access to only alkali metals? If a firework is red, which alkali metal(s) could be responsible?