2. This question is about Reinecke's salt

When ammonium dichromate(VI) is added gradually to molten ammonium thiocyanate, Reinecke's salt is formed.   It has the formula $NH_4[Cr(SCN)_x(NH_3)_y]$ and the following composition by mass:

Cr	15.5 %
S	38.15 %
N	29.2 %.

(a) Calculate the values of x and y in the above formula.

(b) Calculate the oxidation number of chromium in the complex.

(c) Suggest a shape for the complex anion.

(d) Draw two possible structures for the anion and state the type of isomerism it exhibits.