## % YIELDS

The relative formula masses of the compounds mentioned in the question are shown below the formulae of the compounds

1. Calculate the percentage yield of tungsten (W) in the following reaction where 1130g of tungsten(VI) oxide produces 770g of tungsten.

 $WO_3 + 3 H_2 \rightarrow W + 3 H_2O$ 232 184

2. Calculate the percentage yield of titanium in the following reaction where 240g of titanium(IV) chloride produces 45.5g of titanium.

3. Calculate the percentage yield of iron in the following reaction where 240g of iron(III) oxide produces 140g of iron.

4. Calculate the percentage yield of ethene in the following reaction where 30g of dodecane  $(C_{12}H_{26})$  produces 3.3g of ethene.

$$C_{12}H_{26} \rightarrow C_{10}H_{22} + C_2H_4$$
  
170 28