

Titanium carbide is a very hard material. It is used to make tool bits and cutting tools. It has a melting point of  $3140^{\circ}\text{C}$ . 5.00 g of titanium carbide contains 1.00 g of carbon.

Calculate the empirical formula of titanium carbide.

(Relative atomic masses:  $\text{C} = 12.0$ ,  $\text{Ti} = 48.0$ )