Exercise 93

Convert the boiling temperature of gold, 2966 °C, into degrees Fahrenheit and kelvin.

Solution

The Fahrenheit temperature is

$$°F = \frac{9}{5}(°C) + 32.0$$

$$= \frac{9}{5}(2966) + 32.0$$

$$\approx 5339 + 32.0 \quad \text{(rounded to four significant figures)}$$

$$\approx 5371 \quad \text{(rounded to the ones place)},$$

and the Kelvin temperature is

$$K = °C + 273.15$$

$$= 2966 + 273.15$$

$$\approx 3239 \quad \text{(rounded to the ones place)}.$$