Example 3

Oxygen has a boiling point of 87.65 K. What is the temperature in °F?

Solution

$$°C = K - 273.15$$

$$°C = 87.65 - 273.15$$

$$°C = -185.5 °C$$

Please complete the answer :

Convert °C to °F

$$-185.5°C = \frac{9}{5}(°C) + 32$$

$$= -\left(\quad \right) +$$

$$= \qquad °F$$

Example 4

Which temperature is hotter: 15 °C or 56 °F?

Solution

change 56°F to celcius

$$= 56°F = \frac{5}{9} \times (°F - 32)$$

$$= - \times (\quad - \quad)$$

$$= \quad °C$$

So °C is hotter ✗

Example 5

The average surface temperature on Mars is -81.4 °F. What is the temperature in K?

Convert -81.4 °F to °C

$$-81.4 \text{ °F} = \underline{\quad} \times \left(\quad - \quad \right)$$

$$= \underline{\quad} \text{ °C}$$

Convert °C to Kelvin

$$= \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad} \text{ K}$$

Example 6

The highest temperature ever recorded on Earth was 59.7°F, recorded in Libya, Africa in 1922. How many degrees Celsius was this, to the nearest degree ?

Solution

$$59.7\,°F \longrightarrow °C$$

$$= \neg \times \qquad - \;)$$

$$= \qquad °C$$