Example 3

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

Solution

$^{\circ}C = K - 273.15$

$^{\circ}C = 87.65 - 273.15$

$^{\circ}C = -185.5\,^{\circ}C$

Please complete the answer :

Convert °C to °F

$-185.5^{\circ}C = \frac{9}{5}(^{\circ}C) + 32$

$= -(\quad) +$

$= \quad ^{\circ}F$ ※

Example 4

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

Solution

change $56^\circ F$ to celcius

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

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

$= \quad ^\circ C$

So $^\circ C$ is hotter ✱

Example 5

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

Convert $-81.4\,^{\circ}F$ to $^{\circ}C$

$-81.4\,^{\circ}F = \_ \times (\quad - \quad)$

$= \quad ^{\circ}C$

Convert $^{\circ}C$ to Kelvin

$= \quad +$

$= \quad K$ *

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

$59.7\,^{\circ}F \longrightarrow {}^{\circ}C$

$= - \times \quad - \;)$

$= \quad {}^{\circ}C$