

Problema 1105: Realiza los siguientes cambio de unidades:

- a) 50°C (a °F)
- b) 200°F (a K)
- c) 0K (a °F)
- d) 500°C ( a K)

a) 50°C (a °F)

$$\frac{T(^{\circ}\text{C})}{100} = \frac{T(^{\circ}\text{F}) - 32}{180}$$

$$\frac{50}{100} = \frac{T(^{\circ}\text{F}) - 32}{180}$$

$$T(^{\circ}\text{F}) = \frac{50 \cdot 180}{100} + 32 = \underline{\underline{122^{\circ}\text{F}}}$$

b) 200°F (a K) lo pasamos primero a °C y luego a K.

$$\frac{T(^{\circ}\text{C})}{100} = \frac{T(^{\circ}\text{F}) - 32}{180}$$

$$\frac{T(^{\circ}\text{C})}{100} = \frac{200 - 32}{180}$$

$$T(^{\circ}\text{C}) = \frac{200 - 32}{180} \cdot 100 = \underline{\underline{93,33^{\circ}\text{C}}}$$

$$T(\text{K}) = T(^{\circ}\text{C}) + 273 = 93,33 + 273 = \underline{\underline{366,33\text{K}}}$$

c) 0K (a °F) lo pasamos primero a °C y luego a °F

$$T(^{\circ}\text{C}) = T(\text{K}) - 273 = 0 - 273 = \underline{\underline{-273^{\circ}\text{C}}}$$

$$\frac{T(^{\circ}\text{C})}{100} = \frac{T(^{\circ}\text{F}) - 32}{180}$$

$$\frac{-273}{100} = \frac{T(^{\circ}\text{F}) - 32}{180}$$

$$T(^{\circ}\text{F}) = \frac{-273 \cdot 180}{100} + 32 = \underline{\underline{-459,4^{\circ}\text{F}}}$$

d) 500°C ( a K)

$$T(\text{K}) = T(^{\circ}\text{C}) + 273 = 500 + 273 = \underline{\underline{773\text{K}}}$$