The formulas for converting between degree Celsius and degree Fahrenheit are:

°F = (°C \* 9/5) + 32  
°C = (°F - 32) \* 5/9

To find the temperature when both are equal, we use an old algebra trick and just set ºF = ºC and solve one of the equations.

°C = (°C \* 9/5) + 32  
°C - (°C \* 9/5) = 32  
-4/5 \* °C = 32  
°C = -32 \* 5/4  
°C = -40

°F = (°F \* 9/5) + 32  
°F - (°F \* 9/5) = 32  
-4/5 \* °F = 32  
°F = -32 \* 5/4  
°F = -40

So the temperature when both the Celsius and Fahrenheit scales are the same is -40 degrees.

What is this in Kelvin?

|  |  |
| --- | --- |
| **Celsius to Kelvin Conversion** | [K] = [°C] + 273.15 |

-40 = 233.15 K