Question

We know that there is a formula for conversion of Celsius to Fahrenheit:

$$F = 1.8 \cdot C + 32 \,.$$

If we round off numbers in this formula, we will receive:

$$F = 1.8 \cdot C + 32 \approx 2 \cdot C + 30 \,.$$

So, we can say that we can use formula $F = 2 \cdot C + 30$ to convert Celsius temperature into Fahrenheit degrees.

For conversion Fahrenheit into Celsius we can find next formula:

$$F = 2 \cdot C + 30 \Rightarrow 2 \cdot C = F - 30 \Rightarrow C = \frac{F - 30}{2} = \frac{F}{2} - 15 \,.$$

According to this formula $-15°F$ equal: $C = \dfrac{(-15)}{2} - 15 = -15 - 7.5 = -22.5°C \,.$

<u>Answer:</u> $-22.5°C \,.$