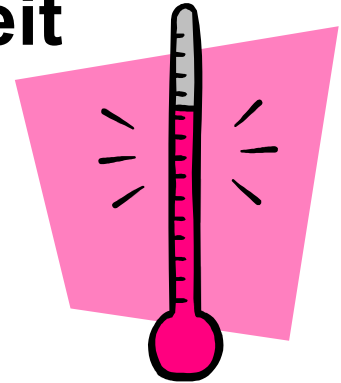


Celsius vs. Fahrenheit

Getting a feel for the difference!



Celsius replaced Fahrenheit in most English-speaking countries in the 1960s.

Fahrenheit is still used in:

- United States
- Puerto Rico
- Belize
- U.S. Virgin Islands

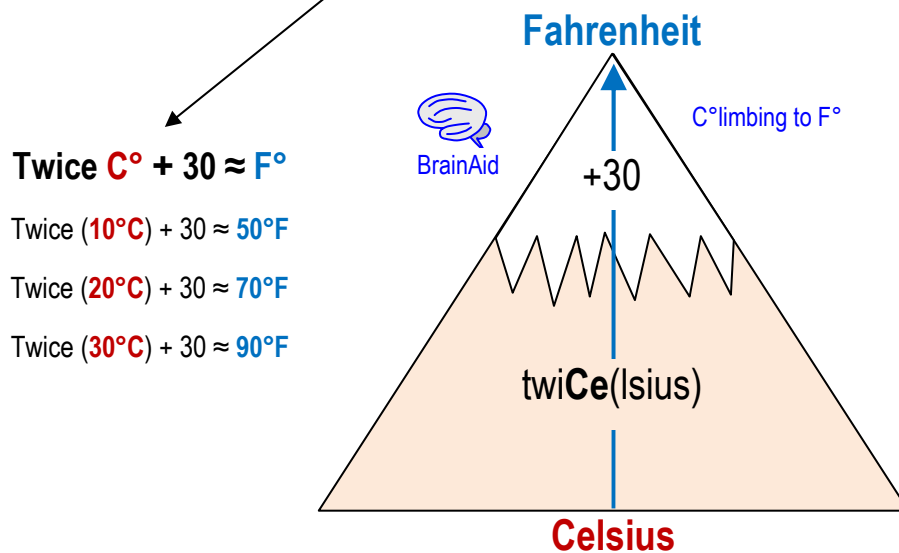
Canada uses both!

To convert C° to F°

Replace the Standard Formula
 $9/5 C^{\circ} + 32 = F^{\circ}$
 with this estimating formula

$$2C^{\circ} + 30 \approx F^{\circ}$$

9/5 rounded up to 2
 32 rounded down to 30



Twice $C^{\circ} + 30 \approx F^{\circ}$

Twice $(10^{\circ}C) + 30 \approx 50^{\circ}F$

Twice $(20^{\circ}C) + 30 \approx 70^{\circ}F$

Twice $(30^{\circ}C) + 30 \approx 90^{\circ}F$

For same Temp, Fahrenheit has higher number.

It's higher on the mountaintop!

$50^{\circ}F$ has a higher number than the equivalent $10^{\circ}C$.

For same Degree, F° feels frigid!

It's colder on the mountaintop!

$20^{\circ}F$ is colder than $20^{\circ}C$ ($\sim 70^{\circ}F$)

$-10^{\circ}F$ is colder than $-10^{\circ}C$ ($\sim 10^{\circ}F$)

Exception

$-40^{\circ}F$ equals $-40^{\circ}C$

C°	F°	F°	Est. - Act.
Actual	Estimate	Actual	Variance

0	30	32	-2
5	40	41	-1
10	50	50	0
15	60	59	+1
20	70	68	+2
25	80	77	+3

For better estimate, if $F^{\circ} \geq 90$, subtract 5

30	$90-5=85$	86	-1
35	$100-5=95$	95	0
40	$110-5=105$	104	-1

Key Temps
 Freezing Point
 $0^{\circ}C = 32^{\circ}F$
 Room Temp
 $20^{\circ}C = 68^{\circ}F$
 Boiling Point
 $100^{\circ}C = 212^{\circ}F$

Exact Temps
 $10^{\circ}C = 50^{\circ}F$
 $35^{\circ}C = 95^{\circ}F$
 $40^{\circ}C = 104^{\circ}F$

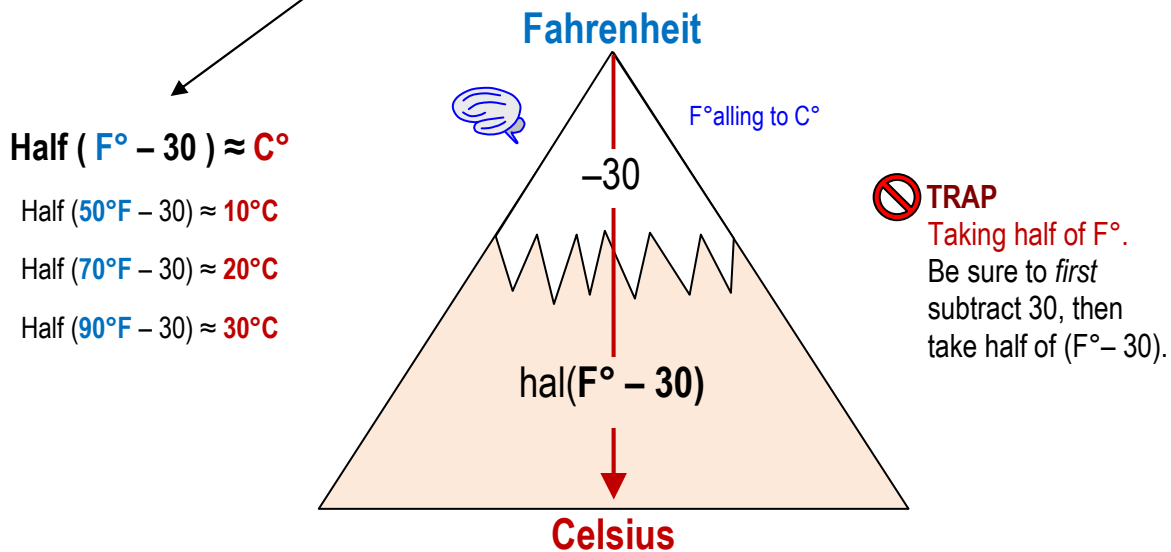
TRAP Spelling it Farenheit. Don't forget the first "h" in Fahrenheit.

To convert F° to C°

Replace the
Standard Formula
 $5/9 (F^\circ - 32^\circ) = C^\circ$
with this estimating formula

$$\frac{1}{2} (F^\circ - 30) \approx C^\circ$$

5/9 rounded down to 1/2
32 rounded down to 30



Your Turn!

Match to the estimate.

- | | |
|--------------|----------|
| 1) ___ 25° C | a. 60° F |
| 2) ___ 5° C | b. 30° C |
| 3) ___ 15° C | c. 80° F |
| 4) ___ 90° F | d. 18° C |
| 5) ___ 66° F | e. 40° F |

True or False

- _____ 15°F is colder than 15°C.
- _____ 20°C is warmer than 60°F.
- _____ For the same temperature, F° has a lower number.
- _____ For the same number of degrees, C° is colder.
- _____ If C° to F° converts to 90 or above, subtract 5 for a better estimate.

Answers: 1c, 2e, 3a, 4b, 5d, 6T, 7T, 8F, 9F, 10T