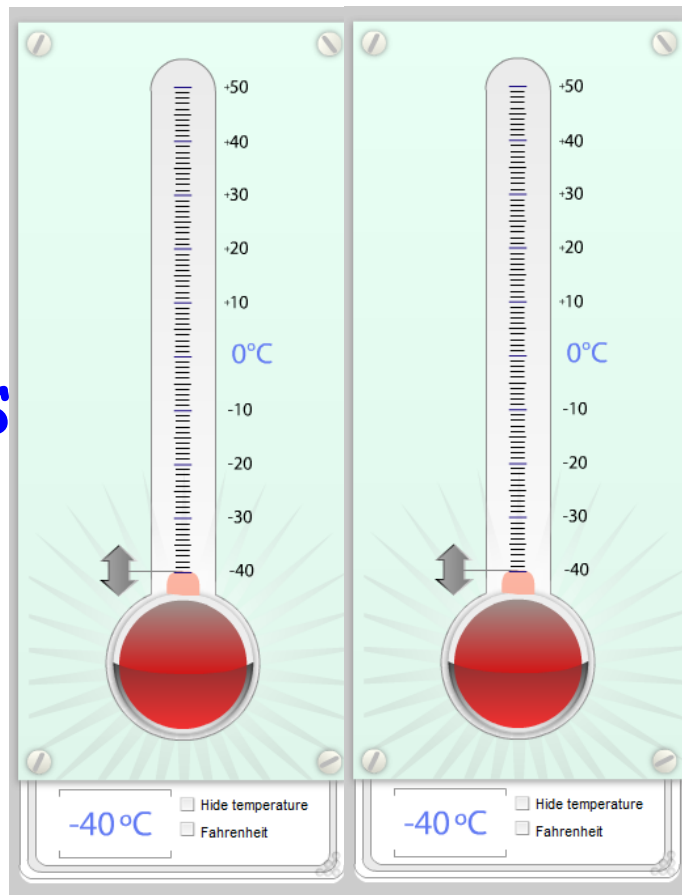# Converting Temperatures

Celsius

Fahrenheit

Converting Fahrenheit to Celsius

F ⟶ C

$$C = \frac{5}{9}(F - 32)$$

Convert -4∘F to degrees Celsius.

$$C = 5/9\ (F - 32)$$
$$= 5/9\ (-4 - 32)$$
$$= 5/9(-36)$$
$$= -20$$

Convert 78°F to degrees Celsius.

$$C = 5/9 \ (F - 32)$$
$$= 5/9 \ (78 - 32)$$
$$= 5/9(46)$$
$$= 25.6$$

Conversions

Convert from °F into °C...

$$C = \frac{5}{9}(F - 32)$$

Convert from °C into °F...

Let's rearrange to get the formula!

$$C = \frac{5}{9}(F - 32)$$

$$C = \frac{5}{9}F - \frac{160}{9}$$

$$F = \frac{9}{5}C + 32$$

$$-\frac{5}{9}F = -C - \frac{160}{9}$$

$$\frac{-\frac{5}{9}F}{-\frac{5}{9}} = \frac{-\frac{9}{5}C}{-\frac{9}{5}} - \frac{\frac{9}{5}160}{-\frac{5}{9}}$$

Formula???

Converting Celsius to Fahrenheit

C ⟶ F

$$F = \frac{9}{5} C + 32$$

Convert 39°C to degrees Fahrenheit.

$$F = 9/5 \ C + 32$$
$$= \ 9/5(39) + 32$$
$$= 70.2 + 32$$
$$= 102.2$$

Convert 14∘C to degrees Fahrenheit.

$$F = 9/5\ C + 32$$
$$= 9/5(14) + 32$$
$$= 25.2 + 32$$
$$= 57.2$$

While travelling in the US, Jennifer and Richard are concerned because their daughter Isabella has a temperature of 40∘C, so they take her to a medical clinic. The nurse takes Isabella's temperature on the Fahrenheit scale. What will Isabella's temperature be in degress Fahrenheit?

$$F = \frac{9}{5}C + 32$$
$$= \frac{9}{5}(40) + 32$$
$$= 72 + 32$$
$$= 104\,°F$$

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Questions #1 - #5