

Name _____ Date _____



Converting Temperatures

To convert between Celsius and Fahrenheit, follow the formulae below.

Celsius to Fahrenheit
= $9/5C + 32$

To go from Celsius to Fahrenheit, divide Celsius by 5 then multiply it by 9 and add 32

Fahrenheit to Celsius
= $5/9 (F - 32)$

To go from Fahrenheit to Celsius, take 32 away from Fahrenheit then divide by 9 and multiply by 5

Example 1

$$\begin{aligned} 48^{\circ}\text{C} &= 48 \div 5 = 9.6 \\ 9.6 \times 9 &= 86.4 \\ 86.4 + 32 &= 118.4^{\circ}\text{F} \end{aligned}$$

Example 2

$$\begin{aligned} 28^{\circ}\text{F} &= 28 - 32 = -4 \\ -4 \div 9 &= -0.4 \\ -0.4 \times 5 &= -2.2^{\circ}\text{C} \end{aligned}$$

Now try these:

1. 37°F
2. 212°F
3. 98°C
4. 80°F
5. 14°C
6. 17°C
7. 76°C
8. 0°C
9. 0°F
10. 100°C
11. 230°F
12. 100°F
13. 220°C
14. 4°F
15. 8°F

Answers

Converting Temperatures

1. $37^{\circ}\text{F} = 2.7^{\circ}\text{C}$
2. $212^{\circ}\text{F} = 100^{\circ}\text{C}$
3. $98^{\circ}\text{C} = 208.4^{\circ}\text{F}$
4. $80^{\circ}\text{F} = 26.6^{\circ}\text{C}$
5. $14^{\circ}\text{C} = 57.2^{\circ}\text{F}$
6. $17^{\circ}\text{C} = 62.6^{\circ}\text{F}$
7. $76^{\circ}\text{C} = 168.8^{\circ}\text{F}$
8. $0^{\circ}\text{C} = 32^{\circ}\text{F}$
9. $0^{\circ}\text{F} = -17.7^{\circ}\text{C}$
10. $100\text{C} = 212^{\circ}\text{F}$
11. $230^{\circ}\text{F} = 110^{\circ}\text{C}$
12. $100^{\circ}\text{F} = 37.7^{\circ}\text{C}$
13. $220^{\circ}\text{C} = 428^{\circ}\text{F}$
14. $4^{\circ}\text{F} = -15.5^{\circ}\text{C}$
15. $-8^{\circ}\text{F} = -22.2^{\circ}\text{C}$