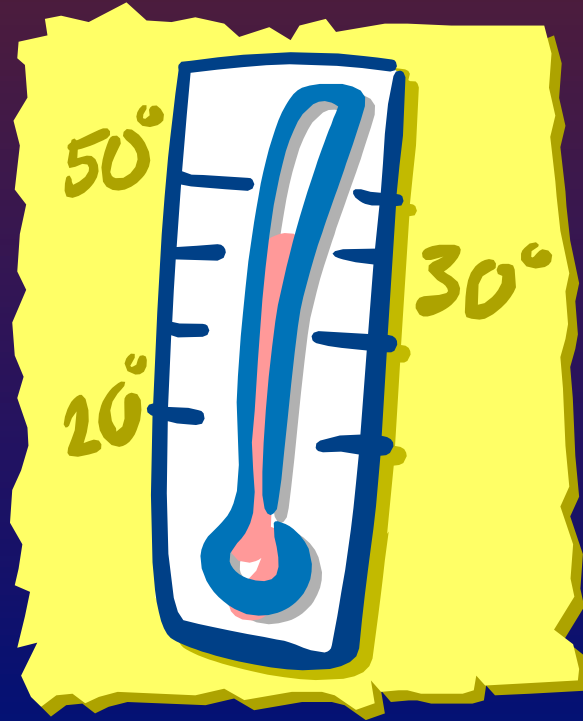


# Basic Temperature Conversions





# Temperature Scales

❖ Fahrenheit

❖ Celsius

❖ Kelvin





# Temperature Conversion Equations

❖ 4 equations to use:

$$^{\circ}\text{F} = 9/5^{\circ}\text{C} + 32$$

$$^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32)$$

$$\text{K} = ^{\circ}\text{C} + 273$$

$$^{\circ}\text{C} = \text{K} - 273$$





# Helpful Hints

- ❖ Identify the equation needed.
- ❖ Plug in the numbers to solve
- ❖ Remember the math rules:
  - ❖ Solve what is in parenthesis first
  - ❖ Solve Multiplication & Division before addition and subtraction
- ❖ Show all work
- ❖ Put box around final answer





# Practice Problem #1

❖  $240^{\circ}\text{C} = \underline{\hspace{2cm}} \text{K}$

❖  $\text{K} = ^{\circ}\text{C} + 273$

❖  $\text{K} = 240 + 273$

❖  $\text{K} = 513$





# Practice Problem #2

❖  $50^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

❖  $^{\circ}\text{C} = 5/9 (^{\circ}\text{F}-32)$

❖  $^{\circ}\text{C} = 5/9 (50-32)$

❖  $^{\circ}\text{C} = 0.55 (18)$

❖  $^{\circ}\text{C} = 10$





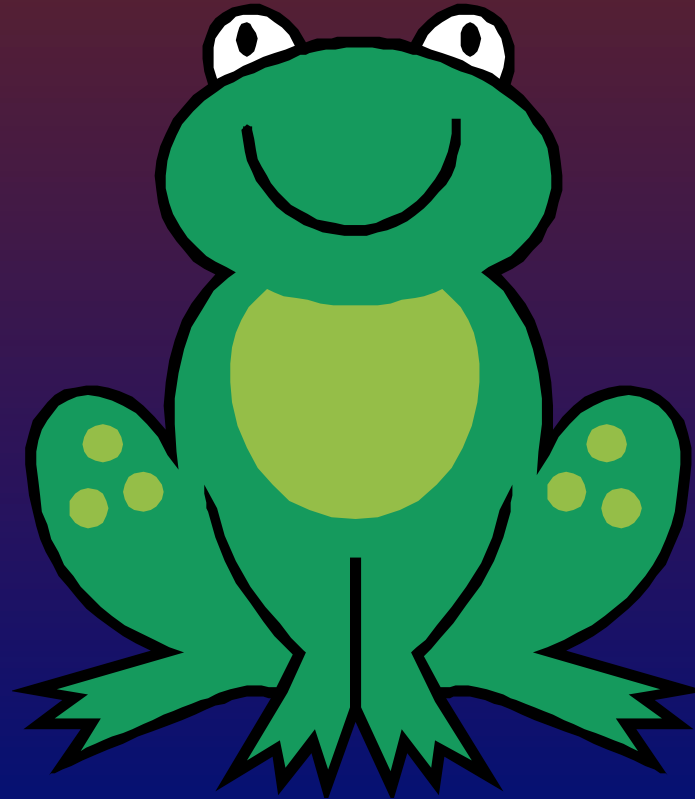
# Practice Problem #3

❖  $510\text{K} = \underline{\hspace{2cm}}\text{ }^{\circ}\text{C}$

❖  $^{\circ}\text{C} = \text{K} - 273$

➤  $^{\circ}\text{C} = 510 - 273$

➤  $^{\circ}\text{C} = 237$





# Practice Problem #4

❖  $20\text{ }^{\circ}\text{C} = \underline{\hspace{2cm}}\text{ }^{\circ}\text{F}$

❖  $^{\circ}\text{F} = 9/5^{\circ}\text{C} + 32$

❖  $^{\circ}\text{F} = 9/5^{\circ}(20) + 32$

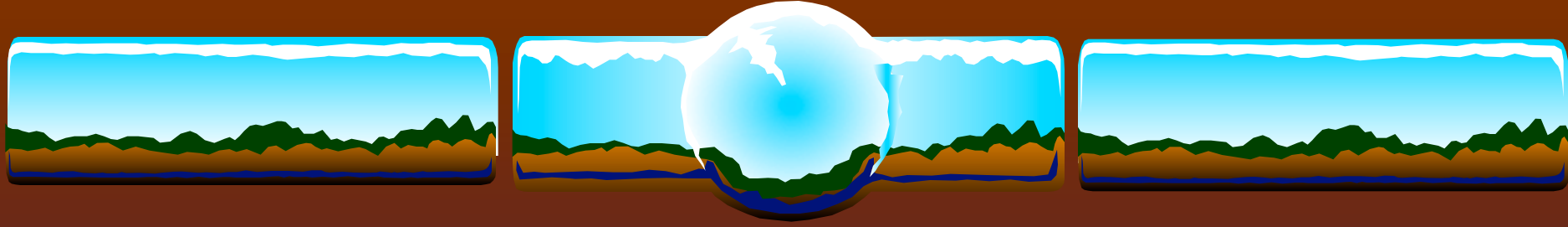
❖  $^{\circ}\text{F} = 1.8(20) + 32$

❖  $^{\circ}\text{F} = 36 + 32$

❖  $^{\circ}\text{F} = 68$







The End

