PROBLEM

1. Write a program that converts a temperature input in degrees Celsius to degrees Fahrenheit and Kelvins, and displays all three values.

ANALYSIS

IPO Chart

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Type | Input | Processing | Output |
| celsius | Float | X |  | X |
| fahrenheit | Float |  | X | X |
| kelvins | Float |  | X | X |

CONSTANTS

None.

FORMULAS

fahrenheit 🡨 ((9 / 5) x celsius) + 32

kelvins 🡨 celsius + 273.15

TEST DATA

|  |  |  |  |
| --- | --- | --- | --- |
| # | celsius | fahrenheit | kelvins |
| 0 | 0.00 | 32.00 | 273.15 |
| 1 | 10.00 | 50.00 | 283.15 |
| 2 | -40.00 | -40.00 | 233.15 |
| 3 | 100.00 | 212.00 | 373.15 |

DESIGN (PSEUDOCODE)

**Declare** celsius, fahrenheit, kelvins As Float

**Write** “Please input the temperature in degrees Celsius”

**Input** celsius

**Set** fahrenheit 🡨 ((9 / 5) x celsius) + 32

**Set** kelvins 🡨 celsius + 273.15

**Write** "Temperature in degrees Celsius: " + celsius

**Write** "Temperature in degrees Fahrenheit: " + fahrenheit

**Write** "Temperature in Kelvins: " + kelvins