

# Solution to Exercises in L#4

# Identify the five errors in the program

```
include <stdio.h> → # is missing before include
int Main(void) → int main(void)
{
    float celsius;
    float fahrenheit;
    printf("This program converts Celsius to Fahrenheit. \n");
    printf("Please enter a Celsius temperature. \n");
    scanf("%f", &Celsius); → celsius
    fahrenheit = 9.0/5.0 * celsius - 32; → + 32 (logic error)
    printf("The temperature in Fahrenheit is: %f\n", fahrenheit) → ; is missing from the end
    return 0;
}
```

# Exercises (1)

- Which of the following are incorrect variable names and why?

Cat (valid)

A+B123 (invalid; + is illegal)

Bα3 (invalid; α is illegal)

2dogs (invalid; cannot start with digit 2)

Lotus12 (valid)

# Exercises (2)

- *True or false:* the following two statements are identical

```
int abc, DEF;
```

```
int ABC, def;
```

Answer: False because C is case sensitive, so abc and ABC are not the same, DEF and def are not the same.

# Exercises (3)

- Which of the following are incorrect C assignment statements and why?

Year = 1975 (incorrect because ; is missing)

1973 = oldyear; (incorrect, variable should be on the left-hand side, its value should be on the right-hand side)

Day = 24 hours; (incorrect; should remove hours)

Age = 32; (correct)

# Exercises (4)

- Declare and define two variables (num1, num2) of integer type, a variable (float1) of double floating point, and a variable (chara1) of character type. And initialize them to be 0, 0, 0, 'a', respectively.

```
int num1=0, num2=0;  
double float1=0;  
char chara1='a';
```

```
int num1;  
int num2;  
double float1;  
char chara1;  
num1 = 0;  
num2 = 0;  
float=0;  
chara1 = 'a';
```

Preferred:

Separate variable  
declaration from  
initialization

One initialization  
per line