

#### Project 1.2

Prints my name, address, and phone number.

#### Project 1.4

Computes and prints the area of a rectangle, given an input width and height.

#### Project 1.5

Computes and prints the area of a triangle, given an input base and height.

#### Project 1.6

Computes and prints the area of a circle, given an input radius.

#### Project 1.7

Inputs the user's name and age and outputs a sentence containing them.

#### Project 2.1

Compute a person's income tax.

##### 1. Significant constants

tax rate = 0.20

standard deduction = 10000.0

deduction per dependent = 3000.0

##### 2. The inputs are

gross income

number of dependents

##### 3. Computations:

net income = gross income - the standard deduction -  
a deduction for each dependent

income tax = is a fixed percentage of the net income

##### 4. The outputs are

the income tax, rounded to two figures

Compute the number of minutes in a year.

Useful facts:

1 year = 365 days (we ignore leap years)

1 day = 24 hours

1 hour = 60 minutes

## Project 2.8

Compute the distance that light travels in a year.

Useful facts:

rate =  $3 \times 10^8$  meters per second

seconds in a year =  $365 \times 24 \times 60^2$

## Project 2.9

Convert kilometers to nautical miles.

Useful facts:

1 kilometer =  $1/10000$  of the distance between the North Pole and the Equator

there are 90 degrees between the North Pole and the Equator

1 degree = 60 minutes of arc

1 nautical mile = 1 minute of arc