1

Population = 328,441,687

Time = 31536000 second

Birth = Time / 8 (31536000 / 8 = 3942000)

Death = Time / 12 (31536000 / 12 =2628000)

Immigrant = Time / 27 (31536000 / 27 = 1168000)

Population = Population(328441687) + Birth(3942000) – Death(2628000) + Immigrant(1168000)

output(Population(330,923,687))

2.

Time = input (“Pick a number between 0 to 1,000,000 seconds”)

W = floor (Time/ 86400)

X = floor ((Time – 86400 \* W) / 3600)

Y = floor ((Time – 86400 \* W – 3600 \* X) / 60))

Z = (Time – 86400 \* W – 3600 \* X – 60 \* Y)

output(W days, X hours, Y minutes, and Z seconds)

3.

Fahrenheit = input (“What is the temperature in Fahrenheit degrees?”)

Celsius = (F – 32) \* (5/9)

output(Celsius)

4.

Number = input (“Pick a number between 1 and 10”)

if Number is not between 1 and 10

output(“The number is not between 1 and 10”)

Number = input (“Pick a number again between 1 and 10”)

else

output(Number)

5

Pick = input (“Choose your adventure! 1. Fight the villain 2. Save the citizen 3. Return to secret base”)

if Pick is 1

output(“You win!”)

Pick = input “(Choose your adventure! 1. Fight the villain 2. Save the citizen 3. Return to secret base”)

else if Pick is 2

output(“You saved the citizen”)

Pick = input (“Choose your adventure! 1. Fight the villain 2. Save the citizen 3. Return to secret base”)

else if Pick is 3

output(“Who will save the world?”)

6A.

|  |  |  |  |
| --- | --- | --- | --- |
| month | College | interest | Balance |
| 0 | 0 | 0 | 10000 |
| 1 | 500 | 10000 \* .005 = 50 | 10000 - 500 + 50 = 9550 |
| 2 | 500 | 9550 \* .005 = 47.75 | 9550 – 500 + 47.75 = 9097.75 |
| 3 | 500 | 9097.75 \* .005 = 45.49 | 9097.75 – 500 + 45.49 = 8643.24 |
| 4 | 500 | 8643.24 \* .005 = 43.22 | 8643.24 – 500 + 43.22 = 8186.46 |
| 5 | 500 | 8186.46 \* .005 = 40.93 | 8186.46 – 500 + 40.93 = 7727.39 |

Balance = 10000

Interest = 0.005 (per month)

College = 500

Month = 0

while balance is more than 0

Month = Month + 1

Interest = Balance \* .005

Balance = Balance – College + Interest

if balance is less than 500

Year = Month / 12

output(Year)

6B.

Balance = input

Interest = input

Expense = input

Month = 0

while balance is more than 0

Month = Month + 1

Interest = Balance \* Interest

Balance = Balance – Expense + Interest

if balance is less than Expense

Year = Month / 12

output(Year)