Grocery List

n=int(input('How many items on your shopping list? '))

def f(n):

grocery\_list={}

values=grocery\_list.values()

print('Enter grocery item and price.')

for i in range(n):

key=input('Item %d Name: ' % int(i+1))

value=float(input('Item %d Price: $' % int(i+1)))

grocery\_list[key]=value

total=sum(values)

x=str(total)

print('Your total is: $'+x)

f(n)

Physics Formula

L=[]

print('''velocity, acceleration, force, pressure, momentum, work done, power,

gravitational potential energy, kinetic energy, friction force''')

print()

s=input('What do you want to calculate from above? ').split()

if s[0]=='velocity':

d1=int(input('What is the displacement travelled in meters (m)? ' ))

t1=int(input('What is the time taken in seconds (s)? '))

v1=d1/t1

if t1<0:

print('Time cannot be less than zero. ')

else:

print('Velocity is '+str(v1)+' m/s. ')

if s[0]=='acceleration':

v2=int(input('What is the velocity in (m/s)? '))

t2=int(input('What is the time taken in seconds (s)? '))

a1=v2/t2

if t2<0:

print('Time cannot be less than zero. ')

else:

print('Acceleration is '+str(a1)+' m/s\u00b2. ')

if s[0]=='force':

m1=int(input('What is the mass in (kg)?' ))

a2=int(input('What is the acceleration in (m/s\u00b2)? '))

f1=m1\*a2

print('Force is '+str(f1)+' N.')

if s[0]=='work' and s[1]=='done':

f2=int(input('What is the force in (N)?' ))

d2=int(input('What is the distance travelled in the direction of the force in meters (m)?' ))

w1=f2\*d2

print('Work done is '+str(w1)+' J.')

if s[0]=='power':

w2=int(input('What is the work done in meters (J)?' ))

t3=int(input('What is the time taken in seconds (s)?' ))

p1=w2/t3

if t3<0:

print('Time cannot be less than zero.')

else:

print('Power is '+str(p1)+' W.')

if s[0]=='momentum':

m2=int(input('What is the mass in (kg)?' ))

v3=int(input('What is the velocity in (m/s)?' ))

mo1=m2\*v3

print('Momentum is '+str(mo1)+' kg m/s.' )

if s[0]=='gravitational' and s[1]=='potential' and s[2]=='energy':

m3=int(input('What is the mass in (kg)?' ))

h1=int(input('What is the height in (m)?' ))

mgh=m3\*9.8\*h1

print('Gravitational potential energy is '+str(mgh)+' J.')

if s[0]=='kinetic' and s[1]=='energy':

m4=int(input('What is the mass in (kg)?' ))

v4=int(input('What is the velocity in (m/s)?' ))

ke=0.5\*m4\*v4\*\*2

print('Kinetic energy is '+str(ke)+' J.')

if s[0]=='friction' and s[1]=='force':

mu1=int(input('What is the coefficient of friction?' ))

nf1=int(input('What is the normal force in (N)?' ))

ff1=mu1\*nf1

if mu1<0:

print('The coefficient of friction cannot be less than zero.')

else:

print('Friction force is '+str(ff1)+' N.')

if s[0]=='pressure':

f2=int(input('What is the force in (N)?' ))

a3=int(input('What is the area in (m\u00b2)?' ))

p2=f2/a3

if a3<0:

print('Area cannot be less than zero.')

else:

print('Pressure is '+str(p2)+' Pa.')

Fun Facts

L=[]

L.append('You can hear a blue whale\'s heartbeat from more than 2 miles away.')

L.append('The man with the world’s deepest voice can make sounds humans can’t hear.')

L.append('The longest English word is 189,819 letters long.')

L.append('Only a quarter of the Sahara Desert is sandy.')

L.append('Bananas grow upside-down.')

L.append('No number before 1,000 contains the letter A.')

L.append('Movie trailers originally played after the movie.')

L.append('Mercedes invented a car controlled by joystick.')

L.append('The inventor of the microwave appliance only received $2 for his discovery.')

L.append('Sloths have more neck bones than giraffes.')

L.append('Bees can fly higher than Mount Everest.')

L.append('Humans have jumped further than horses in the Olympics.')

L.append('The moon has moonquakes.')

L.append('Abraham Lincoln was a bartender.')

L.append('Beethoven never knew how to multiply or divide.')

L.append('The hottest spot on the planet is in Libya.')

L.append('The world’s first novel ends mid-sentence.')

L.append('You lose up to 30 percent of your taste buds during flight.')

L.append('The French-language Scrabble World Champion doesn’t speak French.')

L.append('Marie Curie is the only person to earn a Nobel prize in two different sciences.')

L.append('Bees sometimes sting other bees.')

L.append('Adult cats are lactose intolerant.')

L.append('The total weight of ants on earth once equaled the total weight of people.')

L.append('"E" is the most common letter and appears in 11 percent of all english words.')

L.append('A dozen bodies were once found in Benjamin Franklin\'s basement.')

L.append('Water makes different pouring sounds depending on its temperature.')

L.append('If Pinocchio says “My Nose Will Grow Now”, it would cause a paradox.')

L.append('Only 5% of the ocean has been explored.')

L.append('For 100 years, maps have shown an island that doesn\'t exist.')

L.append('Recycling one glass jar saves enough energy to watch television for 3 hours.')

L.append('While trying to find a cure for AIDS, the Mayo Clinic made glow in the dark cats.')

L.append('A swarm of 20,000 bees followed a car for two days because their queen was stuck inside.')

L.append('Tears contain a natural painkiller, which reduces pain and improves your mood.')

L.append('An apple, potato, and onion all taste the same if you eat them with your nose plugged.')

L.append('Sharks can live for five centuries.')

import random

s=L[random.randint(0,34)]

print('Random Fact Generator')

print()

print(s)