```
# Online Python - IDE, Editor, Compiler, Interpreter
# variables
delta_t = 0.1
t_init = 0
t_final = 5
v_start = -3
x_init = 10

def acceleration(t):
    return -0.1 * (t ** 2) + 0.8 * t + 2

def velocity(v_init, a_init, a_final):
    return v_init + (((a_init + a_final) / 2) * delta_t)

def position(x_init, v_init, v_final):
    return x_init + (((v_init + v_final) / 2) * delta_t)

# Calculations
t_init = t_init + delta_t  # 0.1
t_i = t_init + delta_t      # 0.2
t_ii = t_init + 2 * delta_t # 0.3
t_iii = t_init + 3 * delta_t # 0.4

accel_init = acceleration(t_init)
accel_final = acceleration(t_i)  # Fixed typo: acceleartion -> acceleration
accel_i = acceleration(t_ii)
accel_f = acceleration(t_iii)

v_init = velocity(v_start, accel_init, accel_final)
v_final = velocity(v_init, accel_i, accel_f)
x = position(x_init, v_init, v_final)

# times
print("Initial time:")
print(t_init)

print()

print("Initial time 2:")
print(t_i)

print()

print("Initial time 3:")
```

```
print(t_ii)

print()

print("Initial time 4:")
print(t_iii)

print()

# acceleration
print("acceleration initial:")
print(accel_init)

print()

print("acceleration final:")
print(accel_final)

print()

# velocities
print("Initial velocity:")
print(v_init)

print()

print("Final Velocity:")
print(v_final)

print()

# position
print("Position:")
print(x)
```