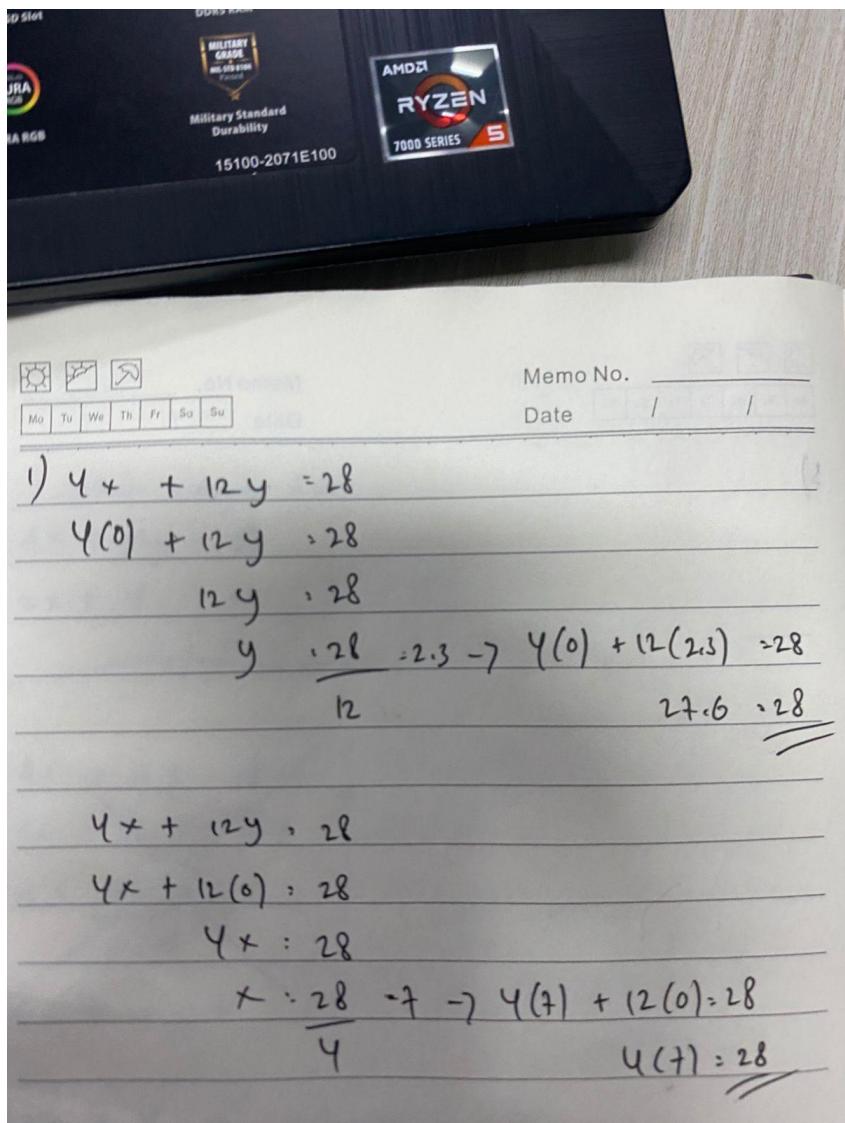


SOAL 1.

Tulis Manual:



Code python :

```

# Latihan dengan scipy 1
from pulp import *

# Model
model = LpProblem(name="Persamaan_1", sense=LpMaximize)

# Variabel keputusan (x, y >= 0)
x = LpVariable("x", lowBound=0)
y = LpVariable("y", lowBound=0)

# Batasan
model += 4*x + 12*y == 28

# Fungsi tujuan hanya formalitas
model += x + y

# Selesaikan
model.solve()

print("Status:", LpStatus[model.status])
print("Nilai x =", x.value())
print("Nilai y =", y.value())

```

*** Status: Optimal
Nilai x = 7.0
Nilai y = 0.0

SOAL 2.

Tulis manual:

$$\begin{aligned}
2) \quad & 2x + y = 21 \\
& 2x + (0) = 21 \\
& 2x = \frac{21}{2} \approx 10.5 \rightarrow 2(10.5) + y = 21 \\
& 2(10.5) \approx 21 \\
\\
& 2x + y = 21 \\
& 2(0) + y = 21 \\
& y = 21
\end{aligned}$$

$y \leq 21$

Code Python:

```

▶ # Latihan dengan scipy 2
from pulp import *

# Membuat objek masalah
model = LpProblem(name="Persamaan_2", sense=LpMaximize) # gunakan LP Maximization

# Membuat variabel
x = LpVariable("x", lowBound=0)
y = LpVariable("y", lowBound=0)

# Menambahkan batasan
model += 2*x + y == 21

# Fungsi tujuan (formalnya x + y)
model += x + y

# Menyelesaikan masalah
model.solve()

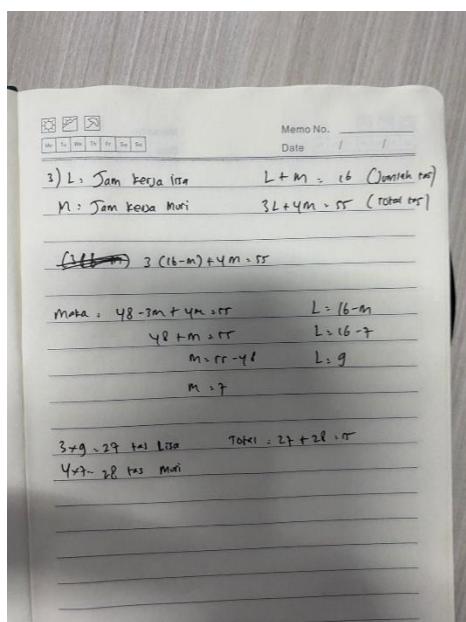
# Menampilkan hasil
print("Status:", LpStatus[model.status])
print("Nilai x =", x.value())
print("Nilai y =", y.value())

```

... Status: Optimal
Nilai x = 0.0
Nilai y = 21.0

SOAL 3.

Tulis manual:



Code Python:

```
#SOAL NOMOR 3
import pulp

model = pulp.LpProblem(name="Jam_Kerja_Lisa_dan_Muri", sense=pulp.lp
    minimize)

x = pulp.LpVariable(name="Jam_Lisa", lowBound=0)
y = pulp.LpVariable(name="Jam_Muri", lowBound=0)

model += 0

model += x + y == 16      # jumlah jam kerja
model += 3 * x + 4 * y == 55 # jumlah tas yang dibuat

model.solve()

print("Status:", pulp.LpStatus[model.status])
print("Jam kerja Lisa (x) =", x.varValue)
print("Jam kerja Muri (y) =", y.varValue)
```