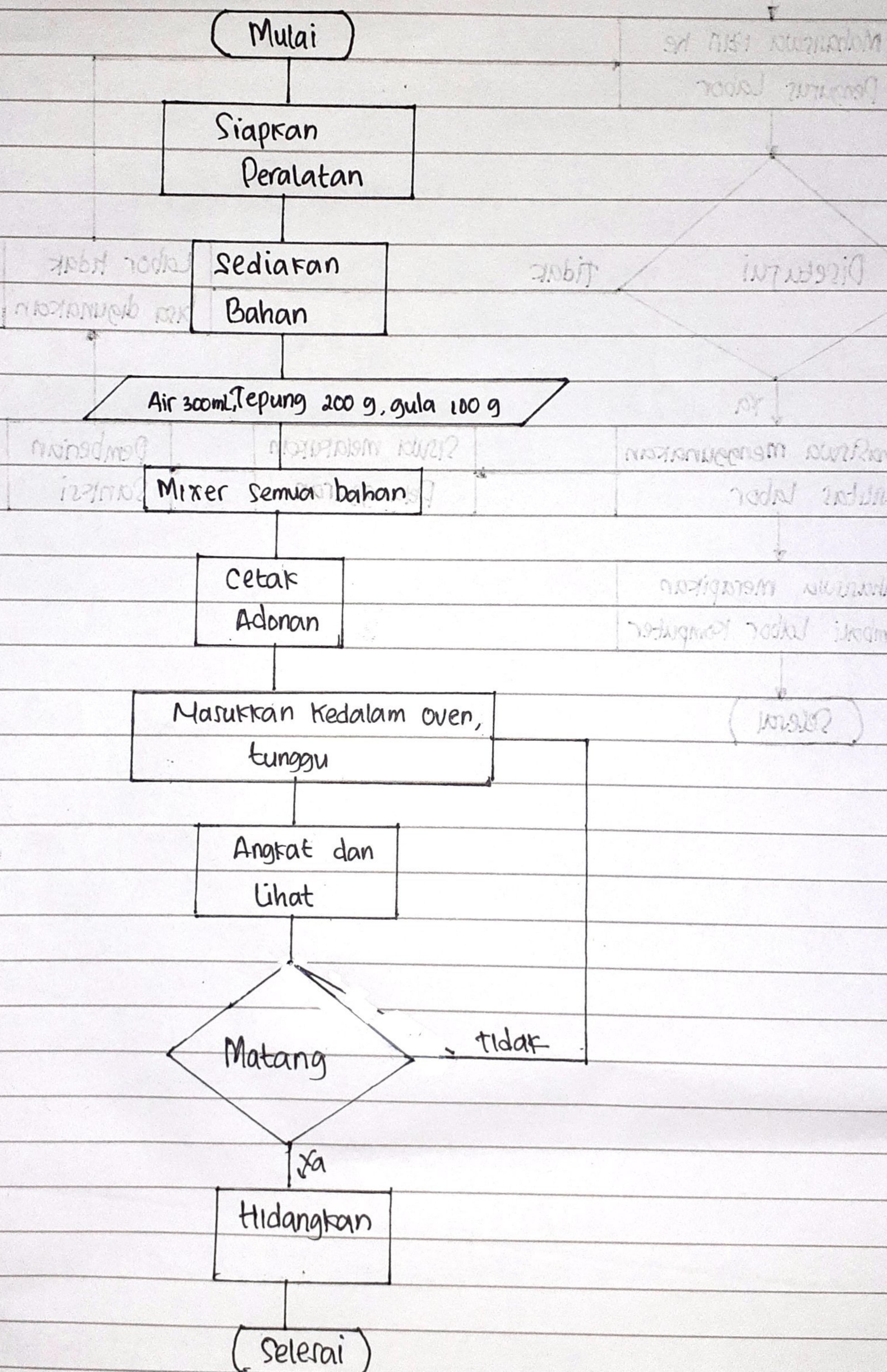
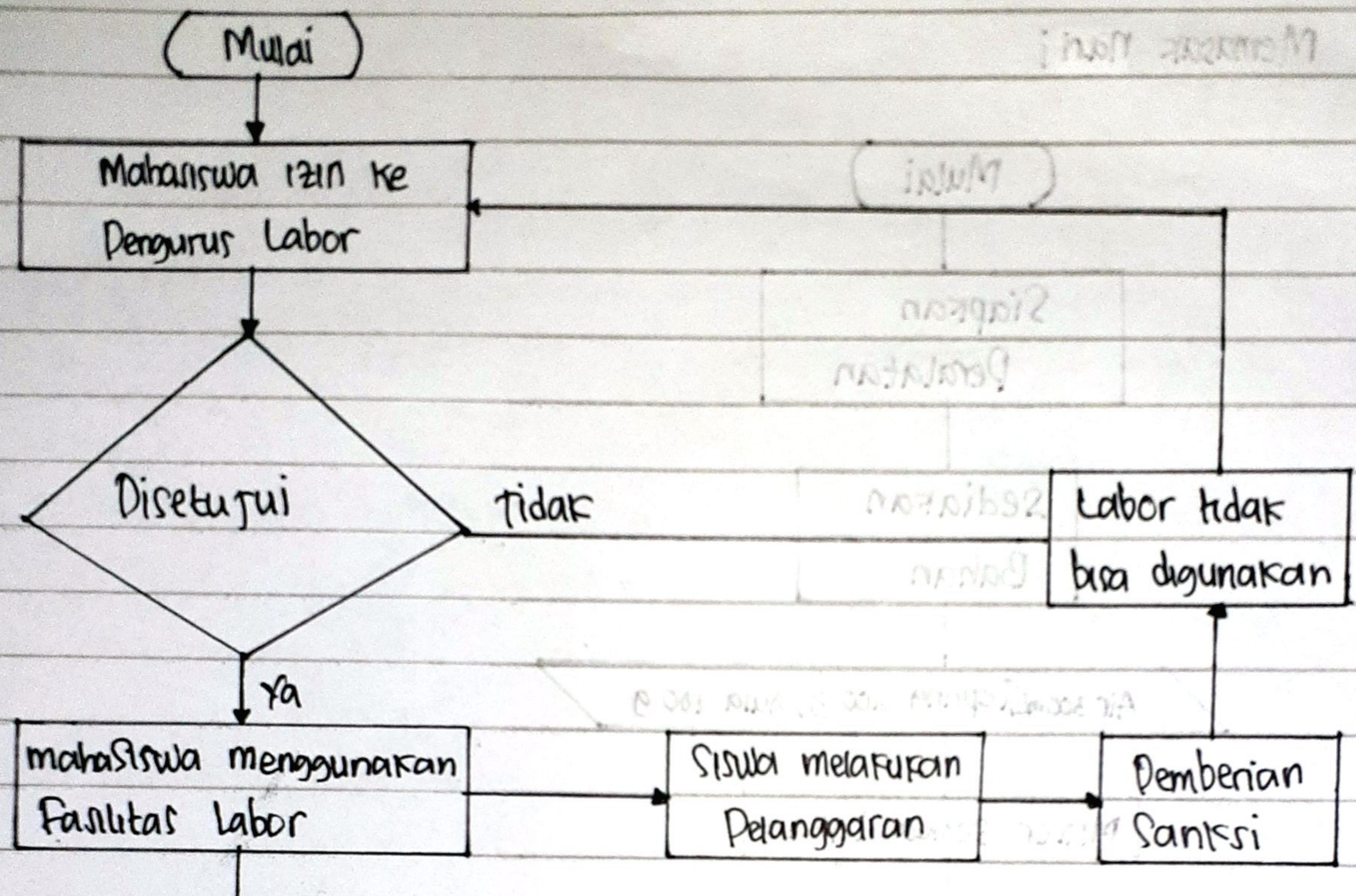


1.7.1 Menyusun Algoritma

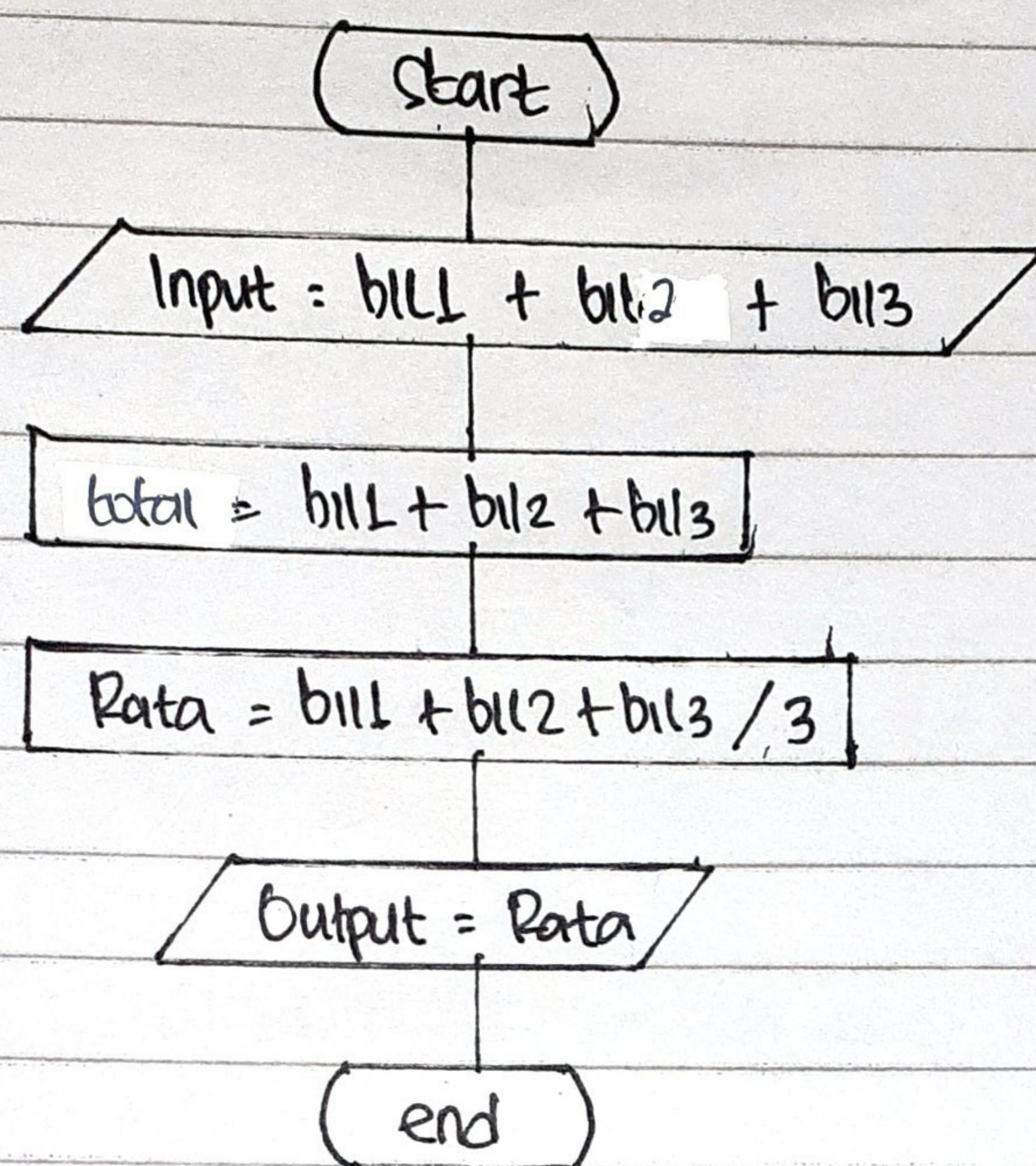
1. Flowchart Memasak Roti



2. Flowchart Menggunakan Komputer di Laboratorium



3. Flowchart Menghitung rata-rata dari 3 buah bilangan



1

1. $1980_{(10)} = 11110111100_{(2)}$ (biner)

$$1980 / 2 = 990 \text{ sisa } 0$$

$$990 / 2 = 495 \text{ sisa } 0$$

$$495 / 2 = 247 \text{ sisa } 1$$

$$247 / 2 = 123 \text{ sisa } 1$$

$$123 / 2 = 61 \text{ sisa } 1$$

$$61 / 2 = 30 \text{ sisa } 1$$

$$30 / 2 = 15 \text{ sisa } 0$$

$$15 / 2 = 7 \text{ sisa } 1$$

$$7 / 2 = 3 \text{ sisa } 1$$

$$3 / 2 = 1 \text{ sisa } 1$$

$$1 / 2 = 0 \text{ sisa } 1$$

$1980_{(10)} = 7BC_{(16)}$ (Hexadesimal)

$$1980 / 16 = 123 \text{ sisa } 12 (\text{C})$$

$$123 / 16 = 7 \text{ sisa } 11 (\text{B})$$

$$7 / 16 = 0 \text{ sisa } 7$$

$1980_{(10)} = 3679_{(8)}$ (oktal)

$$1980 / 8 = 247 \text{ sisa } 4$$

$$247 / 8 = 30 \text{ sisa } 7$$

$$30 / 8 = 3 \text{ sisa } 6$$

$$3 / 8 = 0 \text{ sisa } 3$$

(2)

1. $1001001101_2 = 589_{10}$ (Decimal)

$$(1 \times 2^9) + (0 \times 2^8) + (0 \times 2^7) + (1 \times 2^6) + (0 \times 2^5) + \\ (0 \times 2^4) + (1 \times 2^3) + (1 \times 2^2) + (0 \times 2^1) + (1 \times 2^0)$$

$$512 + 64 + 8 + 4 + 1 \\ = 589$$

2. $1001001101_2 = 29D$ (Hexadecimal)

$$1101 = 8 + 4 + 1 = 13 (0)$$

$$0100 = 4$$

$$0010 = 2$$

3. $1001001101_2 = 1115_8$ (Octal)

$$101 = 5$$

$$001 = 1$$

$$001 = 1$$

$$001 = 1$$

(3)

$$3. \quad 76_{(8)} = 11110 \quad (2) \quad (\text{biner})$$

$$7 = 111$$

$$6 = 110$$

$$76_{(8)} = 3E \quad (16) \quad (\text{Hexadecimal})$$

$$7 = 111$$

$$6 = 110$$

$$0011110$$

$$1110 = 14 (E)$$

$$0011 = 3$$

$$76_{(8)} = 62 \quad (10) \quad (\text{Decimal})$$

$$\therefore (7 \times 8^1) + (6 \times 8^0)$$

$$= 56 + 6$$

$$\therefore 62$$

(4)

$$9. \quad 93F_{(16)} = 010000111111_{(2)} \text{ (binary)}$$

$$9 = 0100$$

$$3 = 0011$$

$$F = 1111$$

$$= 010000111111$$

$$93F_{(16)} = 1087_{(10)} \text{ (Decimal)}$$

$$= (9 \times 16^2) + (3 \times 16^1) + (15 \times 16^0)$$

$$= 1024 + 48 + 15$$

$$= 1087$$

$$93F_{(16)} = 2077_{(8)} \text{ (Octal)}$$

$$9 = 0100$$

$$3 = 0011$$

$$F = 1111$$

$$= 010000.111111$$

$$010 = 2$$

$$000 = 0$$

$$111 = 7$$

$$111 = 7$$