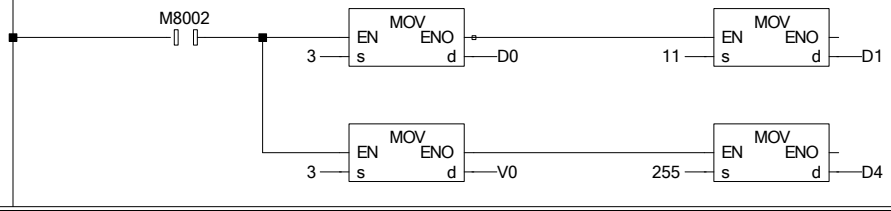
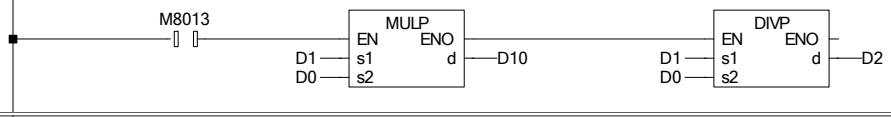
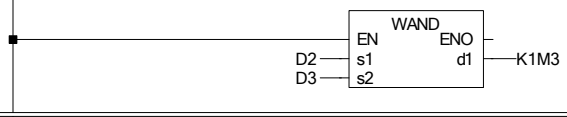
1


M8002
MOV
EN ENO
3 s d D0
MOV
EN ENO
11 s d D1
MOV
EN ENO
3 s d V0
MOV
EN ENO
255 s d D4

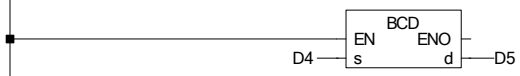
2


M8013
MULP
EN ENO
D1 s1 d D10
D0 s2
DIVP
EN ENO
D1 s1 d D2
D0 s2

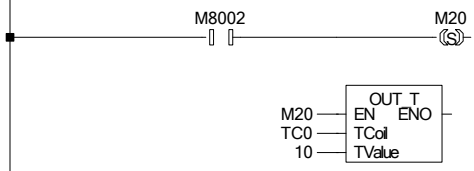
3


WAND
EN ENO
D2 s1 d1 K1M3
D3 s2

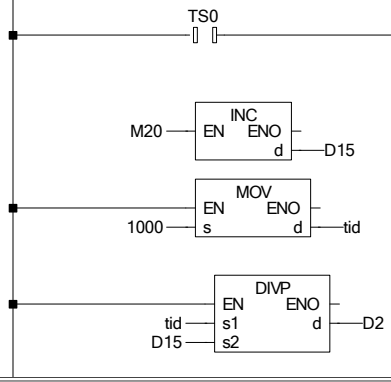
4


BCD
EN ENO
D4 s d D5

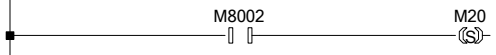
5


M8002
M20
S
OUT_T
M20 EN ENO
TC0 TCoil
10 TValue

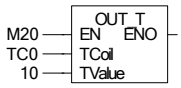
6


TS0
M20
R
INC
M20 EN ENO
d D15
MOV
EN ENO
1000 s d tid
DIVP
EN ENO
tid s1 d D2
D15 s2

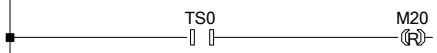
1


M8002
M20
S

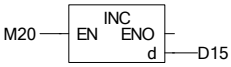
2


OUT_T
M20
EN
ENO
TC0
TCoil
10
TValue

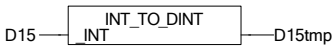
3


TS0
M20
R

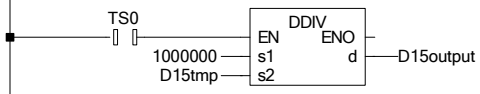
4


INC
M20
EN
ENO
d
D15

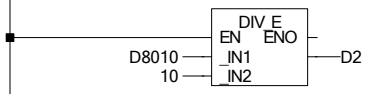
5


INT_TO_DINT
D15
_INT
D15tmp

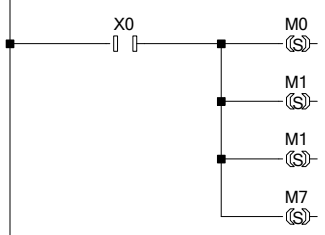
6


TS0
DDIV
EN
ENO
1000000
s1
d
D15output
D15tmp
s2

7


DIV_E
EN
ENO
D8010
_IN1
D2
10
_IN2

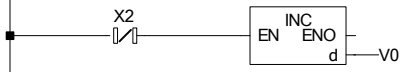
1


X0
M0
M1
M1
M7

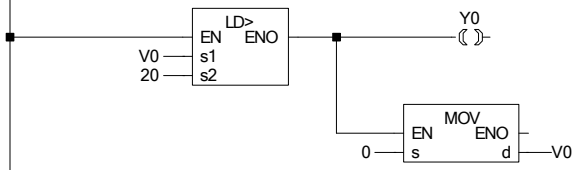
2


X1
MOV
EN
ENO
K2M0
s
d
vektor[V0]

3


X2
INC
EN
ENO
d
V0

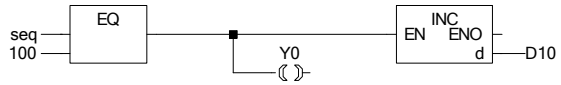
4


LD>
EN
ENO
V0
s1
20
s2
Y0
MOV
EN
ENO
0
s
d
V0

1


M8000
MOV
EN
ENO
100
s
d
seq

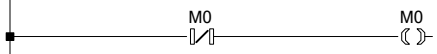
2


EQ
seq
100
Y0
INC
EN
ENO
d
D10

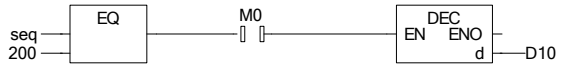
3


LD>=
EN
ENO
D10
s1
50
s2
MOV
EN
ENO
200
s
d
seq

4


M0
M0

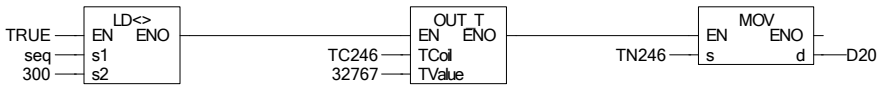
5


EQ
seq
200
M0
DEC
EN
ENO
d
D10

6

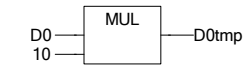

LD<=
EN
ENO
D10
s1
0
s2
MOV
EN
ENO
300
s
d
seq

7

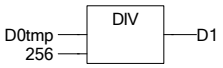

LD<>
EN
ENO
TRUE
seq
s1
300
s2
OUT_T
EN
ENO
TC246
TCoil
32767
TValue
MOV
EN
ENO
TN246
s
d
D20

1

Går ut ifra at 1 i MCB er høyest temp, mens 0 i LCB er lavest temp. Da blir den høyeste verdien i D0 2048 og den laveste 0. Vi må skalere dette ned til 80. Skalaret er 25.6. Det er et flytall, oppgaven sier at vi kun skal utføre heltalloperasjoner. Vi må derfor multiplisere alt med 10 slik at vi kan utføre skaleringen.

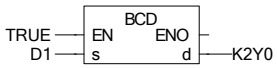


2



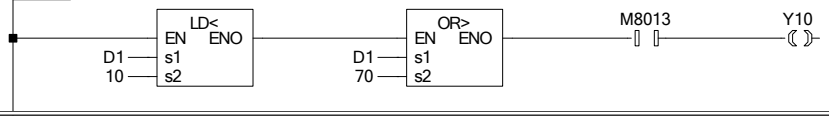
3

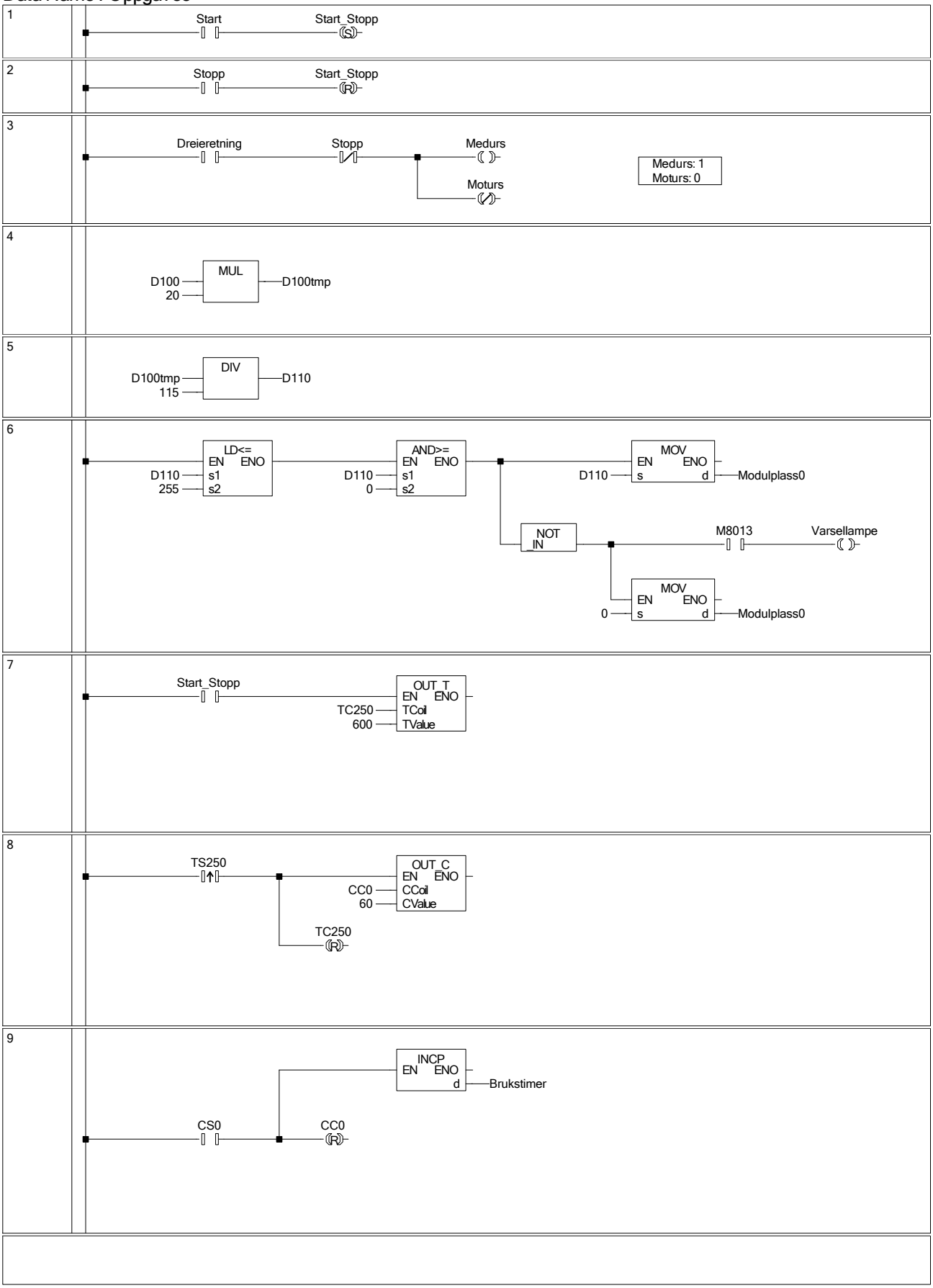
1b)



4

1c)




1
Start
Start_Stopp
2
Stopp
Start_Stopp
3
Dreieretning
Stopp
Medurs
Moturs
Medurs: 1
Moturs: 0
4
MUL
D100
20
D100tmp
5
DIV
D100tmp
115
D110
6
LD<=
EN ENO
D110
255
s1
s2
AND>=
EN ENO
D110
0
s1
s2
MOV
EN ENO
D110
s
d
Modulplass0
NOT
IN
M8013
Varsellampe
MOV
EN ENO
0
s
d
Modulplass0
7
Start_Stopp
OUT_T
EN ENO
TC250
600
TCoil
TValue
8
TS250
OUT_C
EN ENO
CC0
60
CCoil
CValue
TC250
9
INCP
EN ENO
d
Brukstimer
CS0
CC0

Label 3/5/2025
Data Name : Global1
Global Label Setting

	Class	Label Name	Data Type	Constant	Device	Address	Comment	Remark	Relation with System Label	System Label Name	Attribute
1	VAR_GLOBAL	seq	Word[Signed]								
2	VAR_GLOBAL	Start	Bit		M100	%MX0.100					
3	VAR_GLOBAL	Stopp	Bit		M101	%MX0.101					
4	VAR_GLOBAL	Dreieretning	Bit		M102	%MX0.102					
5	VAR_GLOBAL	Modulplass0	Word[Signed]								
6	VAR_GLOBAL	Brukstimer	Word[Unsigned]/Bit String[16-bit]								
7	VAR_GLOBAL	Varsellampe	Bit		Y000	%QX0					
8	VAR_GLOBAL	Start_Stopp	Bit		Y001	%QX1					
9	VAR_GLOBAL	Medurs	Bit		Y002	%QX2					
10	VAR_GLOBAL	Moturs	Bit		Y003	%QX3					
11											
12											
13											
14	VAR_GLOBAL	D15output	Double Word[Signed](0..1)		D60	%MD0.60					
15											
16	VAR_GLOBAL	vektor	Word[Signed](0..19)		D0	%MW0.0					
17	VAR_GLOBAL	D10annenhver	Word[Signed]								

Data Name : Oppgave1a)

Local Label Setting

	Class	Label Name	Data Type	Constant	Device	Address	Comment
1	VAR	TON_1	TON				
2	VAR	tid	Word[Unsigned]/Bit String[16-bit]				

Data Name : Oppgave1b)

Local Label Setting

	Class	Label Name	Data Type	Constant	Device	Address	Comment
1	VAR	D15tmp	Double Word[Signed]				

	Class	Label Name	Data Type	Constant	Device	Address	Comment

	Class	Label Name	Data Type	Constant	Device	Address	Comment

Data Name : Oppgave2
Local Label Setting

	Class	Label Name	Data Type	Constant	Device	Address	Comment
1	VAR	D0tmp	Word[Signed]				

Data Name : Oppgave3

Local Label Setting

	Class	Label Name	Data Type	Constant	Device	Address	Comment
1	VAR	D100tmp	Word[Signed]				
2	VAR	D100DW	Double Word[Signed]				