Övning 2 – SF1610

1a,

213 = 3 (mod 35)

1b,

10

2a,

gcd(45,34) = 1

2b,

3,

7x + 3 = 18 i Z20

7x = 15

7x = 15 i z21

Ingen lösning

4,

119 = 37 \* 3 + 8

37 = 8 \*4 +5

8 = 5 \* 1 + 3

5 = 3 \* 1 + 2

3 = 2\*1 + 1

1 = 3 – 2

= (8 – 5) – (5 – 3)

= 8 – 2\*5 + 3

= 8 – 2\*5 + 8 – 5

= 2\*8 – 3\*5

= 2\*8 – 3(37 – 8\*4)

= 14\*8 – 3\*37

= 14(119 – 37\*3) – 3\*37

= 14\*119 - 45\*37

-45 = 74 (mod 119)

Svar: 74

5,