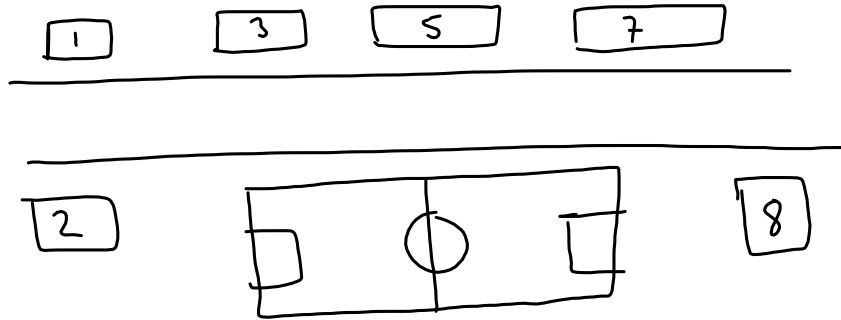


# Forelesning 29/8



Blanding av identitet / ordensfall

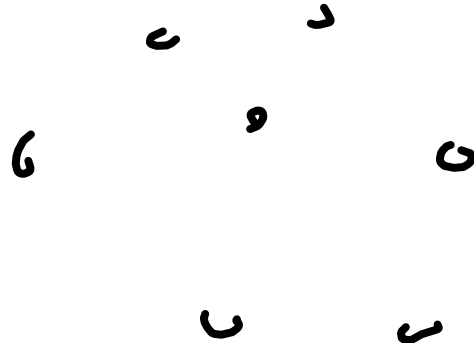
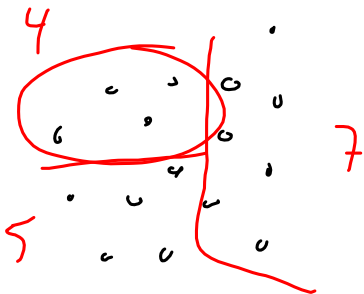
aug. 29-09.17

1)

o o o



2



aug. 29-09.29

○ ○ ○ ○ ○

54 femti fire \* ← engelsk, svensk  
 fire og femti Beskæjrede fransk  
 ↑  
 tysk, dansk

---

Lille ok, kan du skrive fjorten : 41 ≠ 14

aug. 29-09.37

$\begin{matrix} \text{tusener} \\ \swarrow \\ 2 & 8 & 5 & 6 \\ \nearrow & \uparrow & \swarrow & \\ \text{antallet} & \text{antallet} & & \text{antallet} \\ \text{hundreder} & \text{tiere} & & \text{enere} \\ 100 = 10^2 & & & \end{matrix}$

$36471 = 3 \cdot 10^4 + 6 \cdot 10^3 + 4 \cdot 10^2 + 7 \cdot 10^1 + 1$   
 ulvidet form

aug. 29-10.15

Err 56FAC4DA234BCBE45

↑

kall hexadecimalsystemet

$$\begin{array}{r} 1 \\ 27 \\ + 16 \\ \hline 43 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 32 \\ - 18 \\ \hline 14 \\ \hline \hline \end{array}$$

aug. 29-10.22

Titalssystem : 0, 1, 2, 3, ... 9,

Ättekallsystem : 0, 1, 2, ... 7

Tolvfallssystemet : 0, 1, 2, 3, ... 9, A, B

99, 100

77<sub>avt</sub>, 100<sub>avt</sub>

aug. 29-10.30

$$26_{\text{syv}} = 2 \cdot 7 + 6 = 14 + 6 = 20_{\text{ti}}$$

↑ ↑  
syvere enere

$$34_{\text{lem}} = 3 \cdot 5 + 4 = 15 + 4 = 19_{\text{ti}}$$

$$235_{\text{sehs}} = 2 \cdot 6^2 + 3 \cdot 6 + 5 = \underline{\underline{95}}_{\text{ti}}$$

(72 + 18 + 5)

↑ ↑ ↑  
sehs enere

sehs enere

$$4657_{\text{falle}} = 4 \cdot 8^3 + 6 \cdot 8^2 + 5 \cdot 8 + 7 = 2479_{\text{ti}}$$

aug. 29-11.00

$$26_{\text{ti}} = ? \text{ alle}$$

$$26_{\text{ti}} = 3 \cdot 8 + 2 = 32_{\text{alle}}$$

32 alle

$$32_{\text{ti}} = ? \text{ syv}$$

$$32_{\text{ti}} = 4 \cdot 7 + 4 = \underline{\underline{44}}_{\text{syv}}$$

(28)

aug. 29-11.08

$$42_{ti} = ? \quad ni$$

$$42_{ti} = 4 \cdot 9 + 6 = 46_{ni}$$

(36)

$$45_{ti} = ? \quad selvs$$

$$45_{ti} = 1 \cdot 6^2 + 1 \cdot 6 + 3 = \underline{113}_{selvs}$$

$$113$$

$$\therefore 6^2 = 36$$

$$\therefore 45 = 36 + 9$$

$$\left. \begin{array}{l} \therefore \\ \therefore \end{array} \right\} 9 = 1 \cdot 6 + 3$$

aug. 29-11.12

$$75_{ti} = ? \quad \ddot{a}lle$$

$$75_{ti} = 1 \cdot 8^2 + 11$$

$$75_{ti} = 1 \cdot 8^2 + 1 \cdot 8 + 3 = 113_{\ddot{a}lle}$$

$$113_{\ddot{a}lle}$$

kladd

$$8^2 = 64$$

$$75 - 64 = 11$$

$$67_{ti} = ? \quad syv$$

$$67_{ti} = 1 \cdot 7^2 + 2 \cdot 7 + 4 = 124_{syv}$$

$$(49) \quad (14) \quad (4)$$

$$7^2 = 49$$

$$7^3 = 343$$

$$67 - 49 = 18$$

$$18 = 2 \cdot 7 + 4$$

aug. 29-11.17

$$87_{ti} = 2 \text{ sek}$$

$$87_{ti} = 2 \cdot 6^2 + 2 \cdot 6 + 3 = \underline{\underline{223 \text{ sek}}}$$

(72) (12) + (3)

$$6^2 = 36$$

$$6^3 = 216$$


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$$87 - 72 = 15$$

$$15 = 2 \cdot 6 + 3$$

aug. 29-11.27

Oppgave 1

handropes.

a)  $45_{syv} = 4 \cdot 7 + 5 = 28 + 5 = \underline{\underline{33}}_{ti}$

b)  $56_{syv} = 5 \cdot 7 + 6 = 35 + 6 = \underline{\underline{41}}_{ti}$

c)  $2342_{syv} = 2 \cdot 7^3 + 3 \cdot 7^2 + 4 \cdot 7 + 2 = \underline{\underline{863}}_{ti}$

d)  $112_{tre} = 1 \cdot 3^2 + 1 \cdot 3 + 2 = 9 + 3 + 2 = \underline{\underline{14}}_{ti}$

aug. 29-12.10

Oppgave 2

a)  $23 t_i = ? \text{ km}$

$$23 t_i = 4 \cdot 5 + 3 = \underline{\underline{43}} \text{ km}$$

b)  $32 t_i = ? \text{ sek}$

$$32 = 5 \cdot 6 + 2 = \underline{\underline{52}} \text{ sek}$$

f)  $48 t_i = ? \text{ sek}$

$$48 = 1 \cdot 6^2 + 2 \cdot 6 + 0 \cdot 1 = \underline{\underline{120}} \text{ sek}$$
  
$$\begin{array}{ccc} & 1 & \\ \backslash & & / \\ & 1 & 2 & 0 \end{array}$$

$$6^2 = 36$$

$$48 - 36 = 12$$

$$12 = 2 \cdot 6$$

aug. 29-12.27

g)  $135 t_i = ? \text{ alle}$

$$135 t_i = 2 \cdot 8^2 + 0 \cdot 8 + 7 = 207 \text{ alle}$$

$$\begin{array}{ccc} & & \\ \backslash & & / \\ & 2 & 0 & 7 \end{array}$$

$$8^2 = 64$$

$$2 \cdot 8^2 = 128$$

$$135 - 128 = 7$$

h)  $152 t_i = ? \text{ km}$

$$152 = 1 \cdot 5^3 + 27$$

$$= 1 \cdot 5^3 + 1 \cdot 5^2 + 0 \cdot 5 + 2 = \underline{\underline{1102}} \text{ km}$$

$$\begin{array}{ccc} & 1 & \\ \backslash & & / \\ & 1 & 1 & 0 & 2 \end{array}$$

$$5^2 = 25$$

$$5^3 = 125$$

$$5^4 = 625$$

$$152 - 125 = 27$$

$$27 = 1 \cdot 5^2 + 0 \cdot 5 + 2$$

aug. 29-12.33

$$a) 4|3x = 39 \text{ €};$$

$$b) 52x = 42 \text{ €};$$

$$c) 134x = 92 \text{ €};$$

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$$a) \quad 4 \cdot x + 3 = 39 \quad b) \quad 5 \cdot x + 2 = 42$$

$$4x = 39 - 3 \quad 5x = 40$$

$$4x = 36 \quad x = 8$$

$$x = 9$$

aug. 29-12.37

$$134x = 92 \text{ €};$$

$$\text{Prüve } x=7: 1 \cdot 7^2 + 3 \cdot 7 + 4 = 74$$

$$\text{Prüve } x=8: 1 \cdot 8^2 + 3 \cdot 8 + 4 = \underline{\underline{92}}$$

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$$x^2 + 3x + 4 = 92 \quad (\text{MAT 102})$$

$$x^2 + 3x - 88 = 0$$

$$x = \frac{-3 \pm \sqrt{3^2 - 4 \cdot 1 \cdot (-88)}}{2 \cdot 1}$$

$$ax^2 + bx + c = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$a=1, b=3, c=-88$$

aug. 29-12.49



$$x = \frac{-3 \pm \sqrt{3^2 - 4 \cdot 1 \cdot (-88)}}{2 \cdot 1}$$

$$= x = \frac{-3 \pm \sqrt{9 + 352}}{2}$$

$$x = \frac{-3 \pm \sqrt{361}}{2} = \frac{-3 \pm 19}{2} = \begin{cases} -11 \\ \underline{\underline{8}} \end{cases}$$

aug. 29-12.54