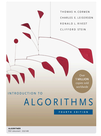


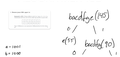
## ALGORITMER 18A

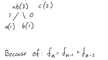
activity(s,f,ID
activity(3,n20)
activity(5,n10)

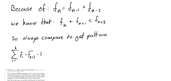
Huffmankoding
eksempel
AABBC
A(3), B(2), C(1)
Lav et Huffmantræ med Huffmans Algoritme

Lesterhull()
antHuffen:=0
frontRoom:=[]
antSymbol
for (key, f, ID)∈T
  if f>=1
    if lisenHuffen(f)=0
      antHuffen:=1
      frontRoom := room
      Room := remove room from frontRoom
      assignHuff(f) := room
    else
      frontRoom := assignHuff(f)
return assignHuff

## ALGORITMER 18B





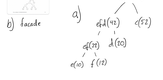


Perfekt balanceret træ

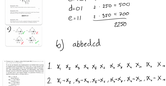
## ALGORITMER 19A1

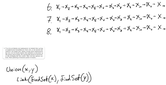


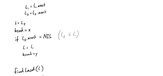
b) facade











a)

b) abbedcd

a) a : 100  b : 100 = 500
b : 00  c : 00 = 300
c : 101  d : 101 = 1410
d : 01  e : 110 = 900
e : 11  f : 110 = 300
                 3200

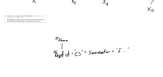
b) abbedcd

1. $X_1\ X_2\ X_3\ X_4\ X_5\ X_6\ X_7\ X_8\ X_9\ X_{10}\ X_{11}\ X_{12}\ X_{13}\ X_{14}\ X_{15}\ X_{16}$
2. $X_1\ X_2\ X_3\ X_4\ X_5\ X_6\ X_7\ X_8\ X_9\ X_{10}\ X_{11}\ X_{12}\ X_{13}\ X_{14}\ X_{15}\ X_{16}$
3. $X_1\ X_2\ X_3\ X_4\ X_5\ X_6\ X_7\ X_8\ X_9\ X_{10}\ X_{11}\ X_{12}\ X_{13}\ X_{14}\ X_{15}\ X_{16}$
4. $X_1\ X_2\ X_3\ X_4\ X_5\ X_6\ X_7\ X_8\ X_9\ X_{10}\ X_{11}\ X_{12}\ X_{13}\ X_{14}\ X_{15}\ X_{16}$
5. $X_1\ X_2\ X_3\ X_4\ X_5\ X_6\ X_7\ X_8\ X_9\ X_{10}\ X_{11}\ X_{12}\ X_{13}\ X_{14}\ X_{15}\ X_{16}$
6. $X_1\ X_2\ X_3\ X_4\ X_5\ X_6\ X_7\ X_8\ X_9\ X_{10}\ X_{11}\ X_{12}\ X_{13}\ X_{14}\ X_{15}\ X_{16}$
7. $X_1\ X_2\ X_3\ X_4\ X_5\ X_6\ X_7\ X_8\ X_9\ X_{10}\ X_{11}\ X_{12}\ X_{13}\ X_{14}\ X_{15}\ X_{16}$
8. $X_1\ X_2\ X_3\ X_4\ X_5\ X_6\ X_7\ X_8\ X_9\ X_{10}\ X_{11}\ X_{12}\ X_{13}\ X_{14}\ X_{15}\ X_{16}$

Union(x,y)
  Link(FindSet(x), FindSet(y))

Link(x,y)
  $L_x := x$
  $L_y := y$
  while $L_x$ ≠ nil and $L_y$ ≠ nil
    $L_x := L_x$.next
    $L_y := L_y$.next
  $L_x := L_y$
  head := x
  if $L_y$.next = NIL  $(L_y = L)$
    $L := L$
    head := y

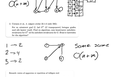
FindSet(x)
  while head
    L.next := head
    head:=head + L.header
    head = head.next
    L = L.next

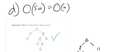




Plan
Find: "C" = Sammenhæng = "F"

## ALGORITMER 19A2





a) O(n) & O(n)
b) O(n) & O(n)
c) O(n log n) & O(n)
d) O(n+m) = O(n)







































## ALGORITMER 19B2



## ALGORITMER 20A































## ALGORITMER 20B































## ALGORITMER 21A1































## ALGORITMER 21B1































## ALGORITMER 21A2