

Untitled1

September 9, 2020

```
[1]: function partialdigest(L)
      global X,width
      width = maximum(L)
      deleteat!(L,findfirst(isequal(width),L))
      X = [0,width]
      place(L,X)
end
```

[1]: partialdigest (generic function with 1 method)

```
[2]: function place(L,X)
      if L==[]
          println(sort(X))
          return
      end
      y = maximum(L)

      if subset(D(y,X),L)
          push!(X,y)
          for x1 in X
              D = abs(y-x1)
              if issubset(D,L)
                  deleteat!(L,findfirst(isequal(D),L))
              end
          end
          place(L,X)
          if issubset(y,X)
              deleteat!(X,findfirst(isequal(y),X))
          end
          adding(y,X)
      end
      if subset(D(abs(y-width),X),L)
          push!(X,abs(width-y))
          k = abs(width-y)
          for x1 in X
              D = abs(k-x1)
              if issubset(D,L)
```

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        deleteat!(L,findfirst(isequal(D),L))
    end
end
place(L,X)
if issubset(abs(width-y),X)
    deleteat!(X,findfirst(isequal(abs(width-y)),X))
end
adding(abs(width-y),X)
end
end

```

[2]: place (generic function with 1 method)

```

[3]: function D(y,X)
    value = []
    for x1 in X
        append!(value,abs(y-x1))
    end
    return value
end

```

[3]: D (generic function with 1 method)

```

[4]: function subset(value1,value2)
    for x1 in value1
        if issubset(x1,value2)
            continue
        else
            return false
        end
    end
    return true
end

```

[4]: subset (generic function with 1 method)

```

[5]: function adding(y,X)
    for x1 in X
        push!(L,(abs(y-x1)))
    end
    return
end

```

[5]: adding (generic function with 1 method)

```

[6]: X = []
L=[1, 1, 2, 2, 2, 3, 3, 4, 4, 5, 5, 5, 6, 7, 7, 7, 8, 9, 10, 11, 12]

```

```
width = 0  
partialdigest(L)
```

```
[0, 3, 5, 7, 10, 11, 12]  
[0, 3, 5, 7, 10, 11, 12]  
[0, 2, 4, 5, 7, 11, 12]  
[0, 2, 4, 5, 7, 11, 12]  
[0, 1, 5, 7, 8, 10, 12]  
[0, 1, 5, 7, 8, 10, 12]  
[0, 1, 2, 5, 7, 9, 12]  
[0, 1, 2, 5, 7, 9, 12]
```

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[ ]:
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