

## פתרון תרגיל בית מספר 9 (סמסטר חורף 2014)

להלן תוכן 5 הקבצים P9.1-P9.5.

### P9.1

```
sed '/\(. *[0-9].*\)\{3,\}/!d' $1 >| MS_Nums
sed 's/\([0-9]\)/&&/5g' MS_Nums
```

### P9.2

```
sed '/^[^0-5]*$/p' $1
```

### P9.3

```
#!/bin/awk -f
{
  A[FILENAME,FNR]=0
  for (i=1; i<=NF; i++) {
    A[FILENAME,FNR]=A[FILENAME,FNR] + $i
    B[FILENAME]=FNR
  }
}
END {
  maxF=0
  for (y=1; y<length(ARGV); y++) {
    i=ARGV[y]
    isYes=1
    sum=A[i,1]
    for (j=2; j<=B[i]; j++) {
      if (sum != A[i,j]) { isYes=0 }
    }
    if (isYes==1) {
      print i " YES " sum
      if (maxF==0) {
        max=sum
        maxF=1
      }
    }
    else {
      if (max < sum) { max=sum }
    }
  }
  else {
    print i " NO"
  }
}
print max
}
```

#### **P9.4**

```
#!/bin/awk -f
{
  for (i=1; i<=NF; i++) {
    A[FILENAME,FNR,i]=$i
    C[FILENAME,FNR]=NF
    B[FILENAME]=FNR
    D[FILENAME]=D[FILENAME]+$i
  }
}
END {
  for (z=1; z<length(ARGV); z++) {
    x=ARGV[z]
    sum=0
    sum1=0
    good=1
    if (C[x,1] != C[x,B[x]]) {
      good =0
    }
    else {
      for (j=1; j<=C[x,1]; j++) {
        sum=sum+A[x,1,j]
        sum1=sum1+A[x,B[x],j]
      }
      if (sum != sum1) {
        good=0
      }
      else {
        sum=0
        sum1=0
        for(j=1; j<=C[x,1]; j++) {
          sum=sum+A[x,j,1]
          sum1=sum1+A[x,j,C[x,1]]
        }
        if (sum !=sum1) {
          good=0
        }
      }
    }
  }
  if (good==1) {
    print x " YES"
  }
  else {
    print x " NO"
  }
}
maxf=0
max=0
for (k in D) {
  if (maxf==0) {
    max=D[k]
  }
}
```

```
        maxf=1
    }
    else {
        if (D[k]>max) {
            max=D[k]
        }
    }
}
print max
}
```

### **P9.5**

```
#!/bin/awk -f
BEGIN {
    max=0
}
{
    for (i=1; i<=NF; i++) {
        ret=sub("[A-Za-z]", "1", $i)
        if (ret==0) {
            curr=length($i)
            if (curr>max) {
                max=curr
            }
        }
    }
}
END {
    print max
}
```