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Assignment 5 - Discrete Mathematics
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Assignment 5

Chapter 3.1

- 4)

```
procedure max difference(a_1, a_2, ..., a_n :integers)
j:= 1
k:= 2
maxdiff := 0
while (k < n+1)
    diff := a_j − a_k
    if diff > maxdiff
        maxdiff := diff
```

- 10)

```
procedure exponentiate(x : floating point; n : integer)
if (n = 0)
    return 1
k := 1
if (n < 0)
   k := −1
start := 1
i := 1
while (i<n+1)
   start := x∗start
   i++
return k∗start
```

- 16)

```
procedure smallest int(a_1, a_2, ..., a_n : integers)
small = a_1
j := 2
while (j < n+1)
   if (a_j < small)
      small := a_j
   j++
return small
```

- 28)

procedure create sublist($a_1, a_2, ..., a_n$: integers)

```
objects := n
location := 0
for x := 1 to 4
   length := floor(objects/(4 − (x−1)))
   objects := objects−length
   for y := 1 to length
      L[x][y] := a[y+location]
   location := location + length
return L
```

- 50)

- 56)