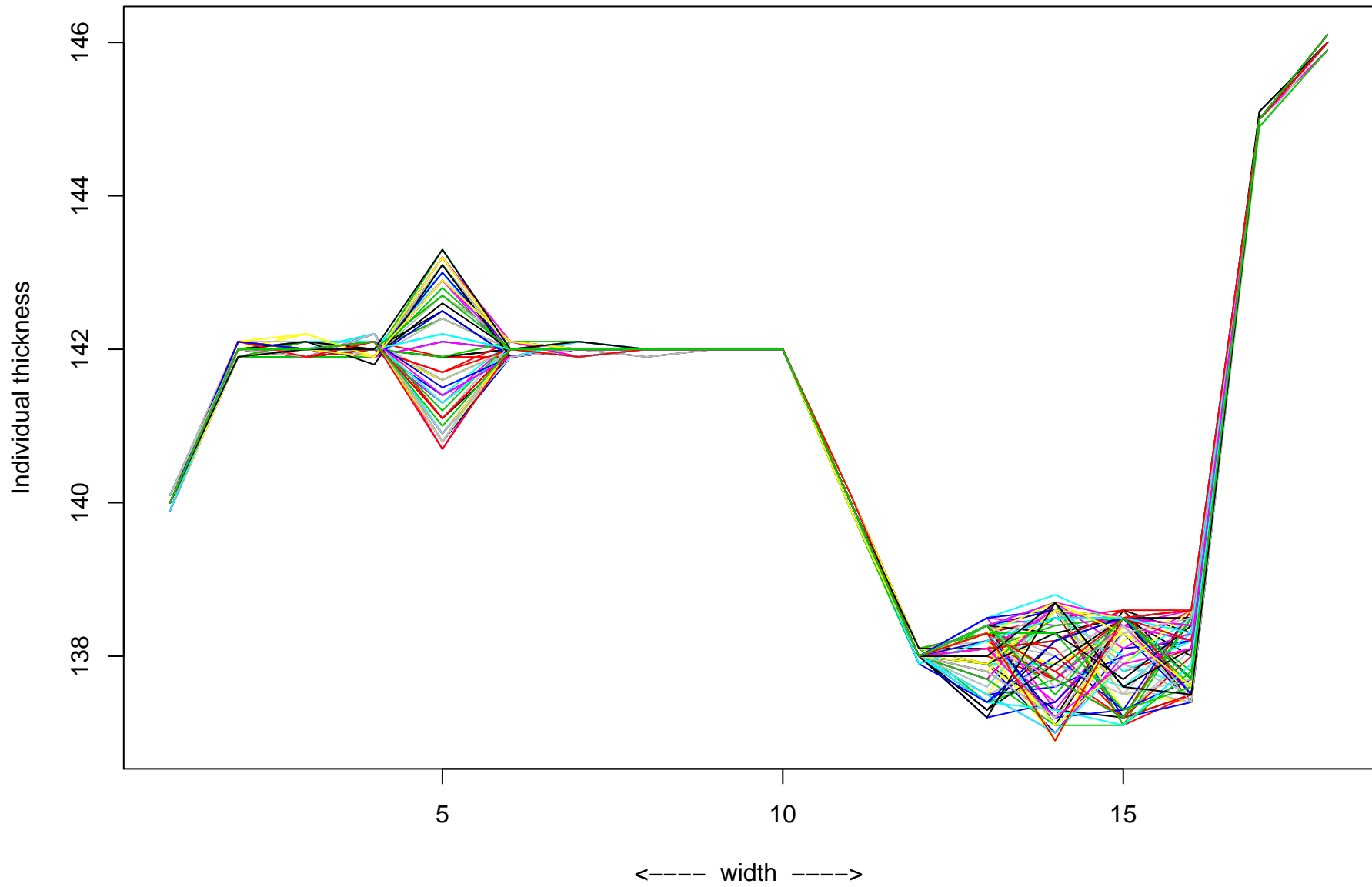
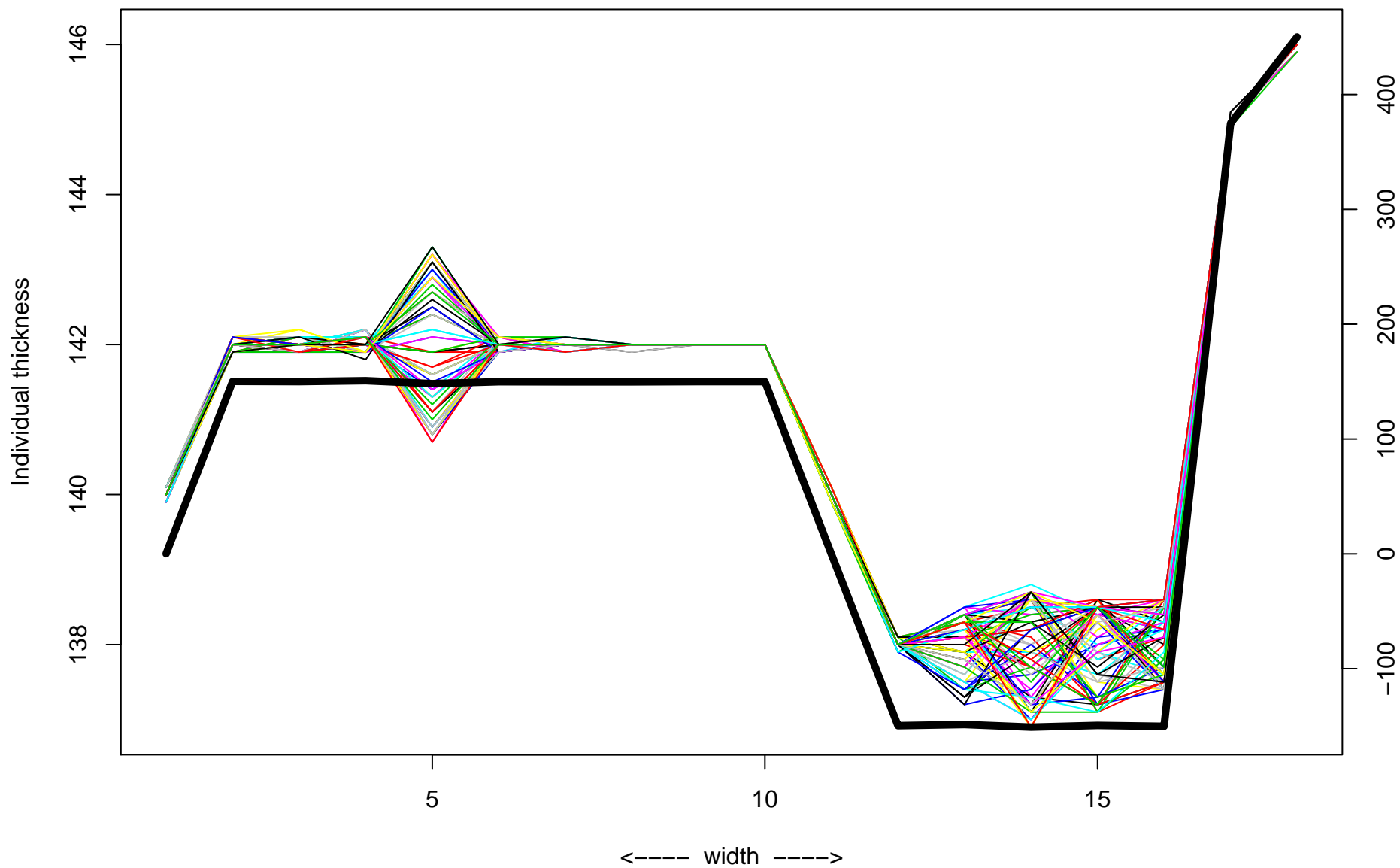


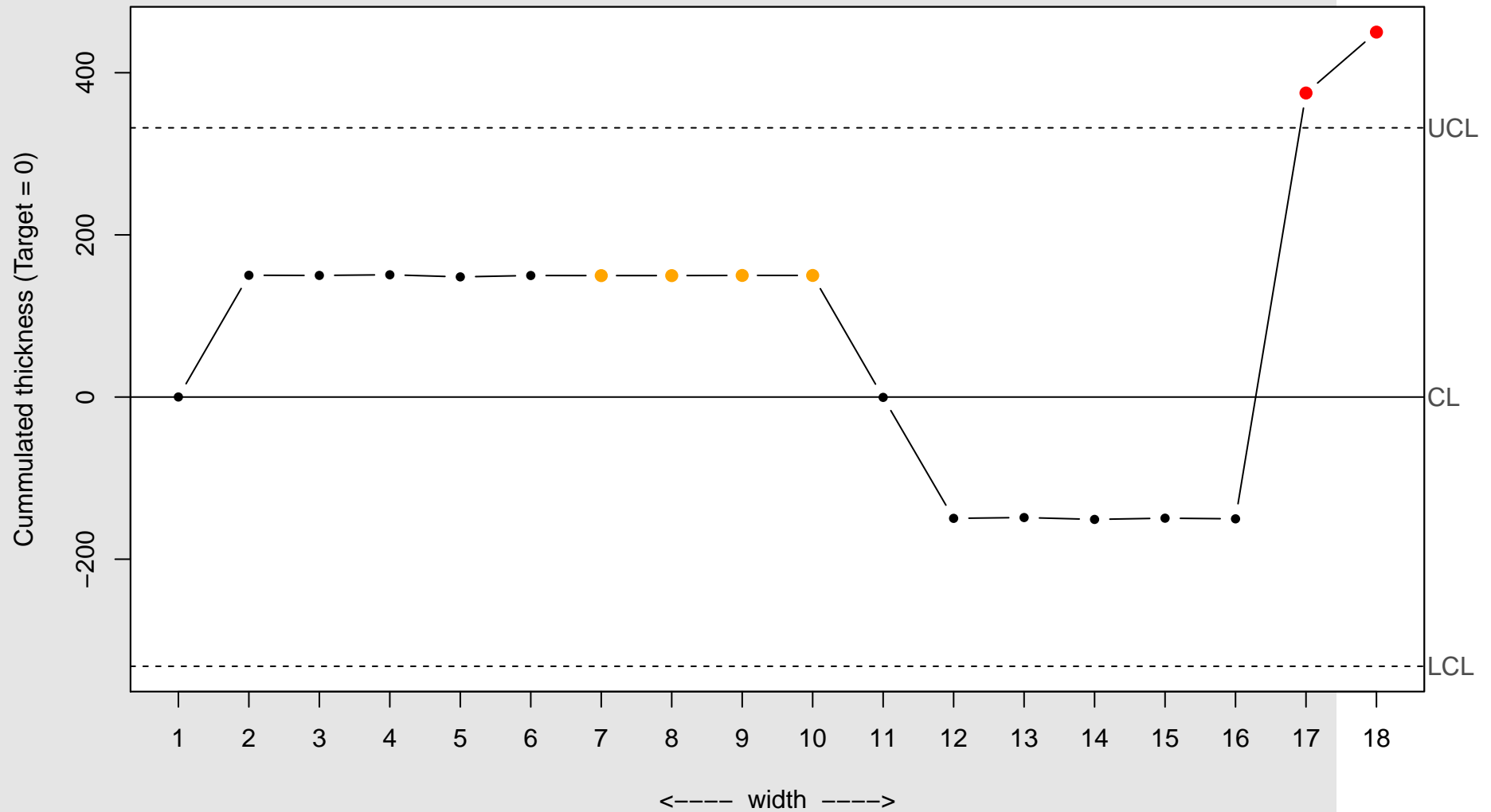
# Individual thickness only



# Simulated thickness



## Simulated thickness

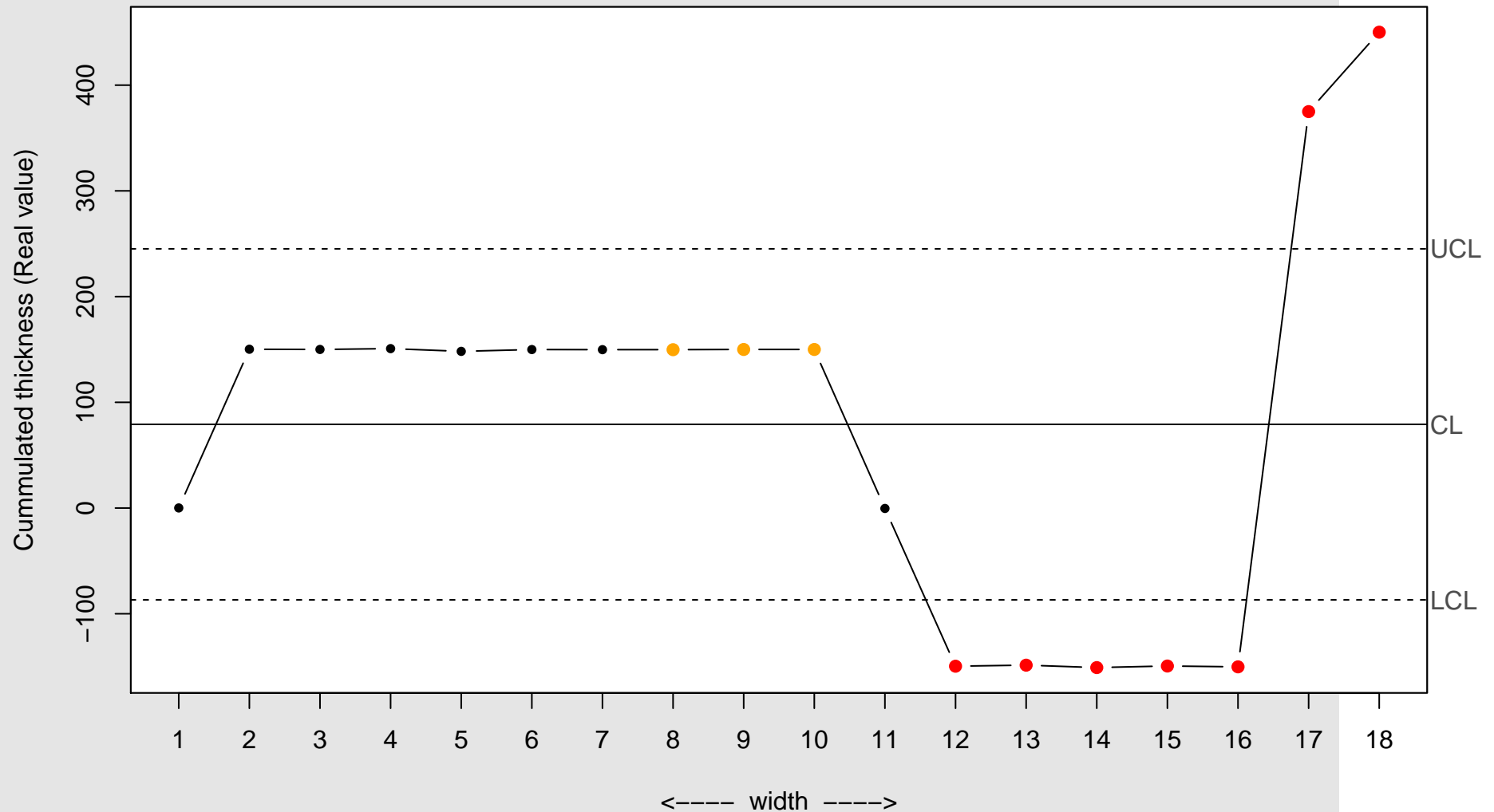


Number of groups = 18  
Center = 0  
StdDev = 55.34001

LCL = -332.0401  
UCL = 332.0401

Number beyond limits = 2  
Number violating runs = 4

Simulated thickness: Cpk is  $-0.08595$  and  $z$  is  $-1.758$ .

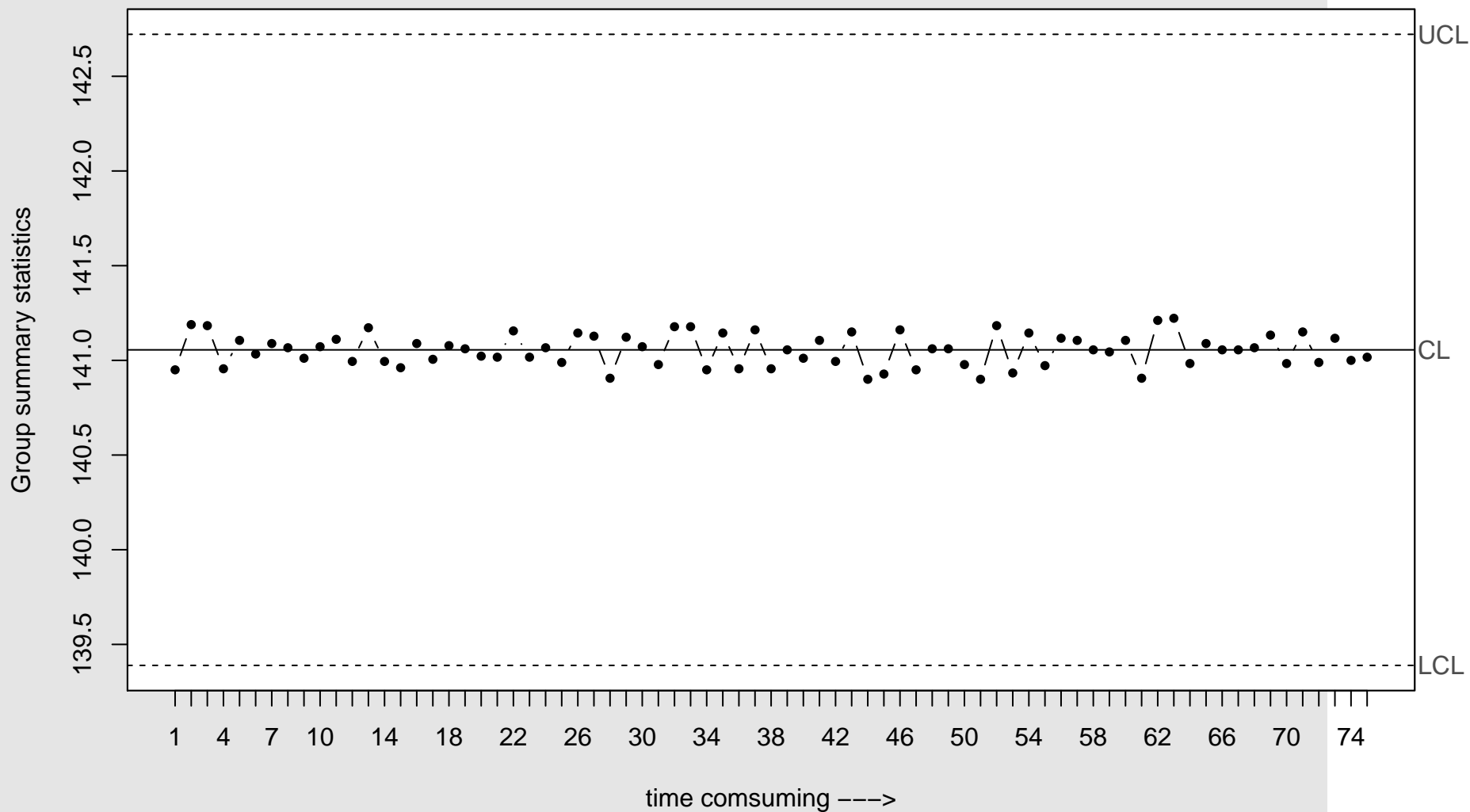


Number of groups = 18  
Center = 79.15556  
StdDev = 55.34001

LCL =  $-86.86447$   
UCL = 245.1756

Number beyond limits = 7  
Number violating runs = 3

X-bar chart for a given dataset

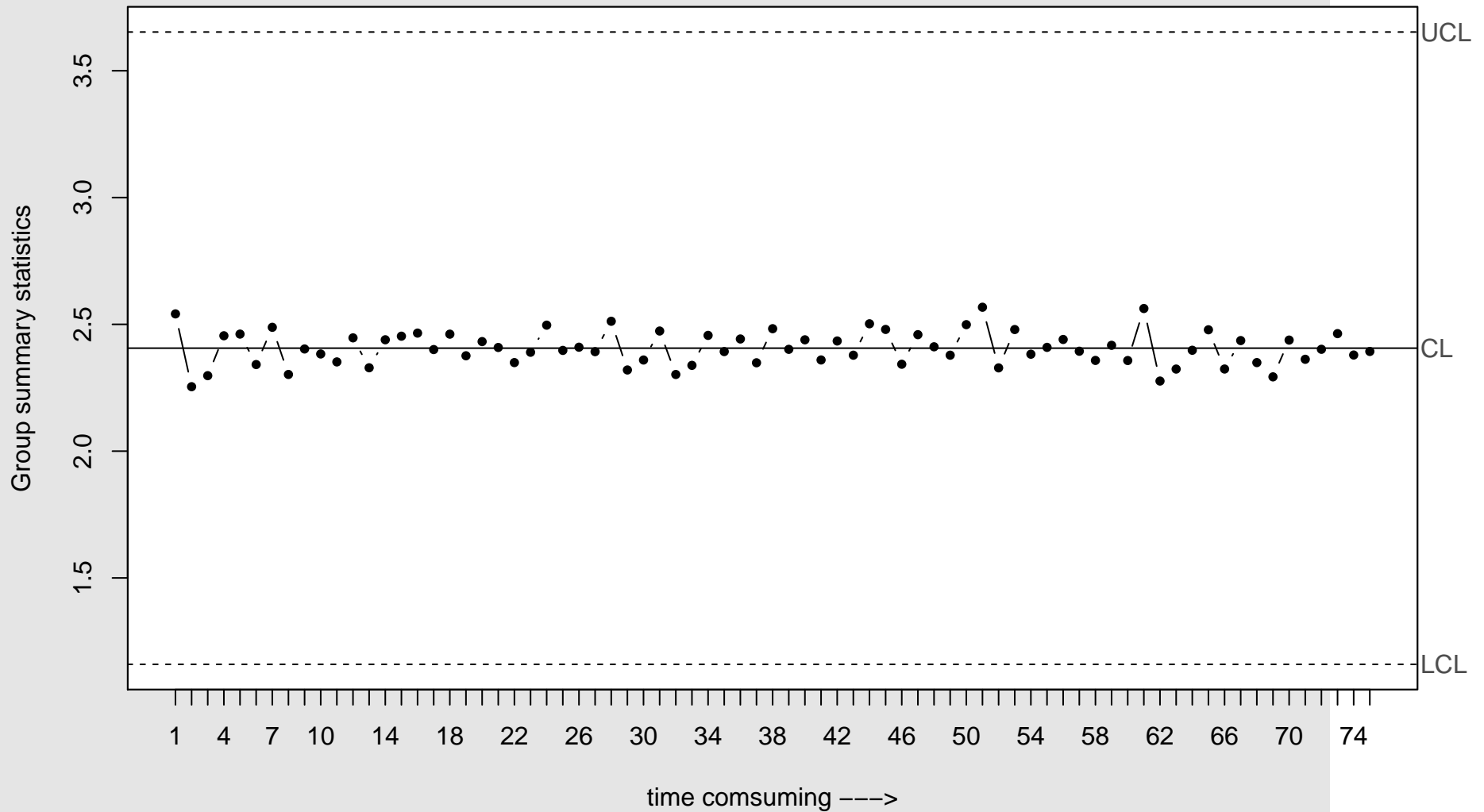


Number of groups = 75  
Center = 141.0554  
StdDev = 2.35641

LCL = 139.3892  
UCL = 142.7216

Number beyond limits = 0  
Number violating runs = 0

S chart for a given dataset



Number of groups = 75

Center = 2.40608

StdDev = 2.441704

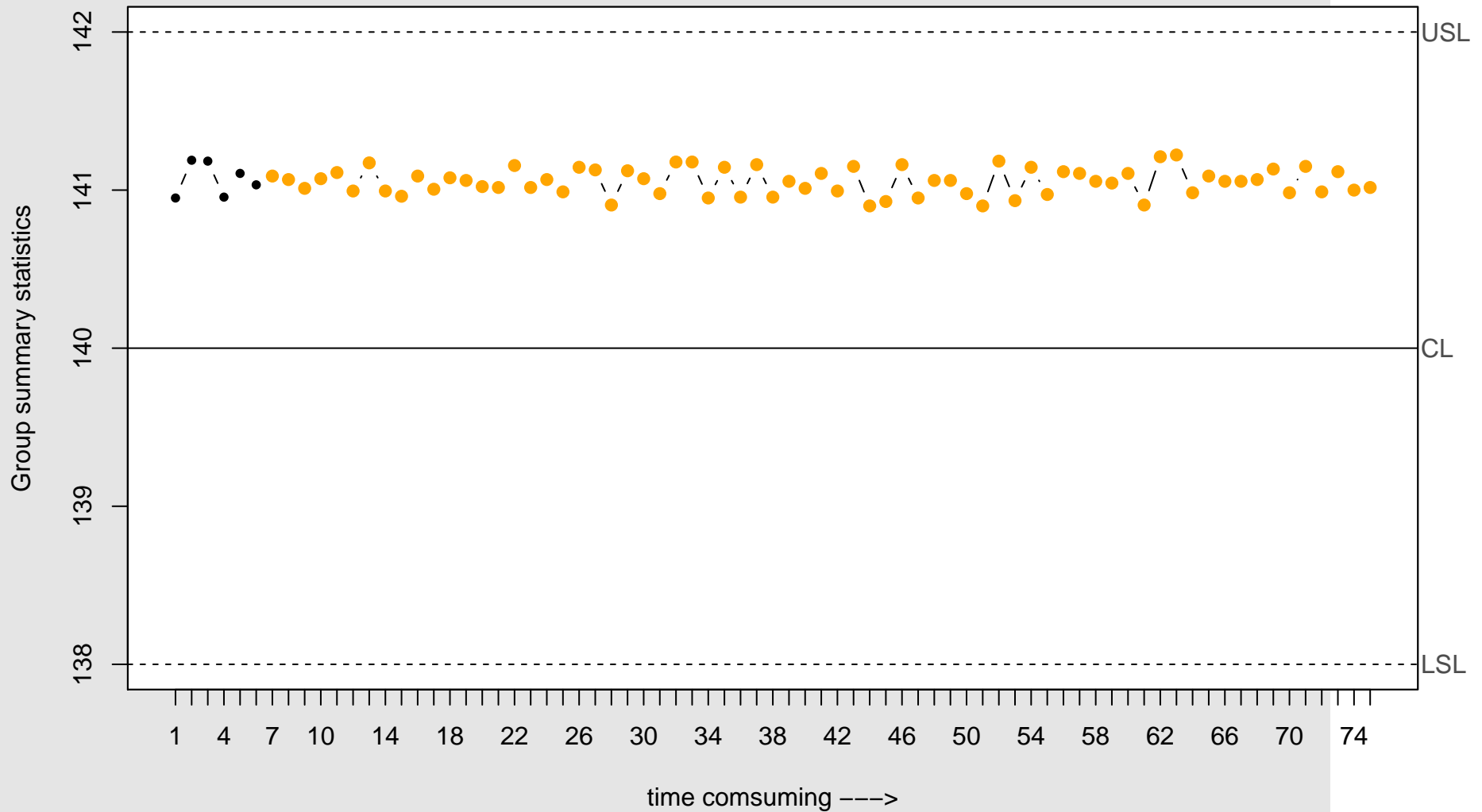
LCL = 1.159367

UCL = 3.652792

Number beyond limits = 0

Number violating runs = 0

X-bar chart using USL/LSL for a given dataset



Number of groups = 75

Center = 140

StdDev = 2.35641

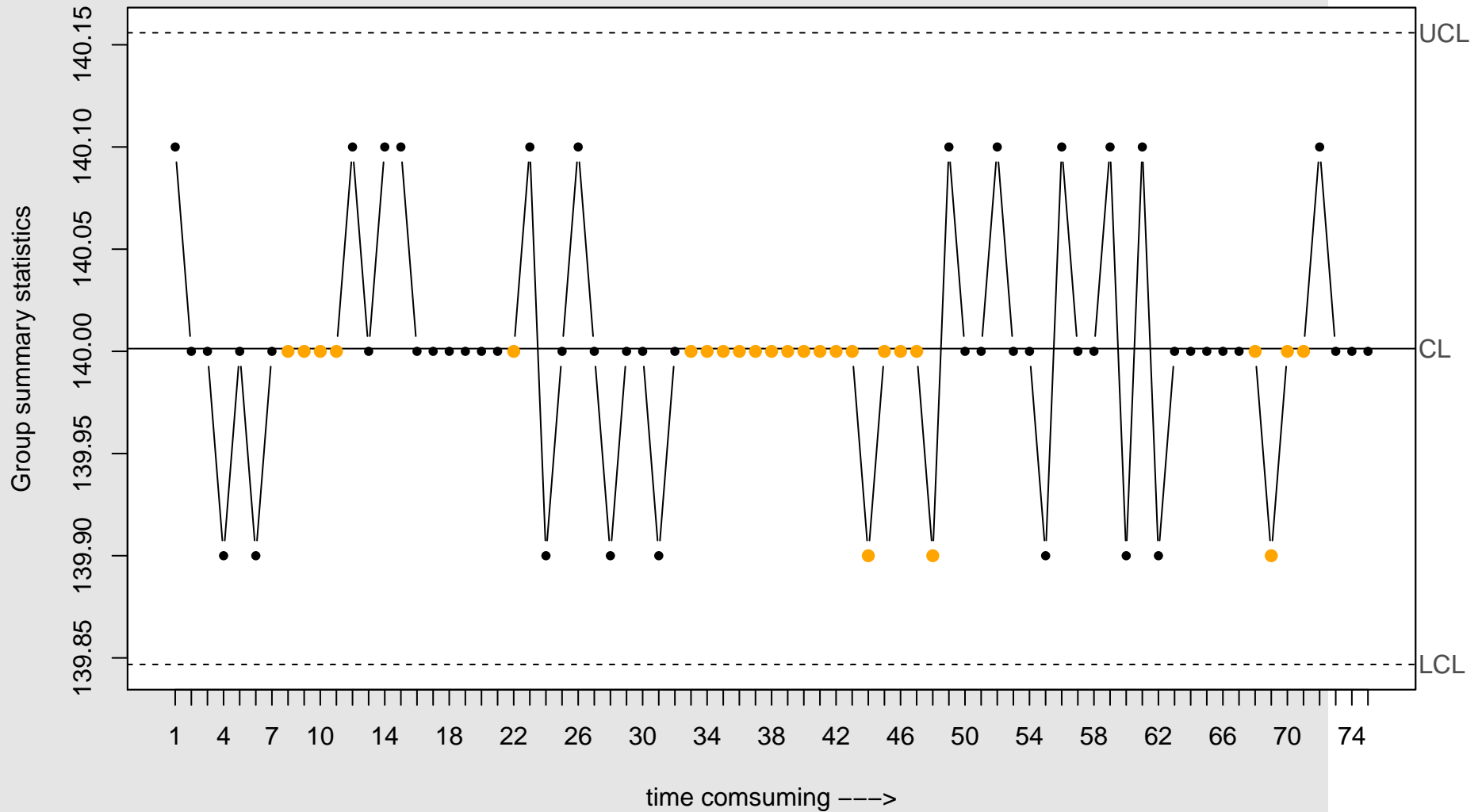
LCL = 138

UCL = 142

Number beyond limits = 0

Number violating runs = 69

# 1th column point of this product



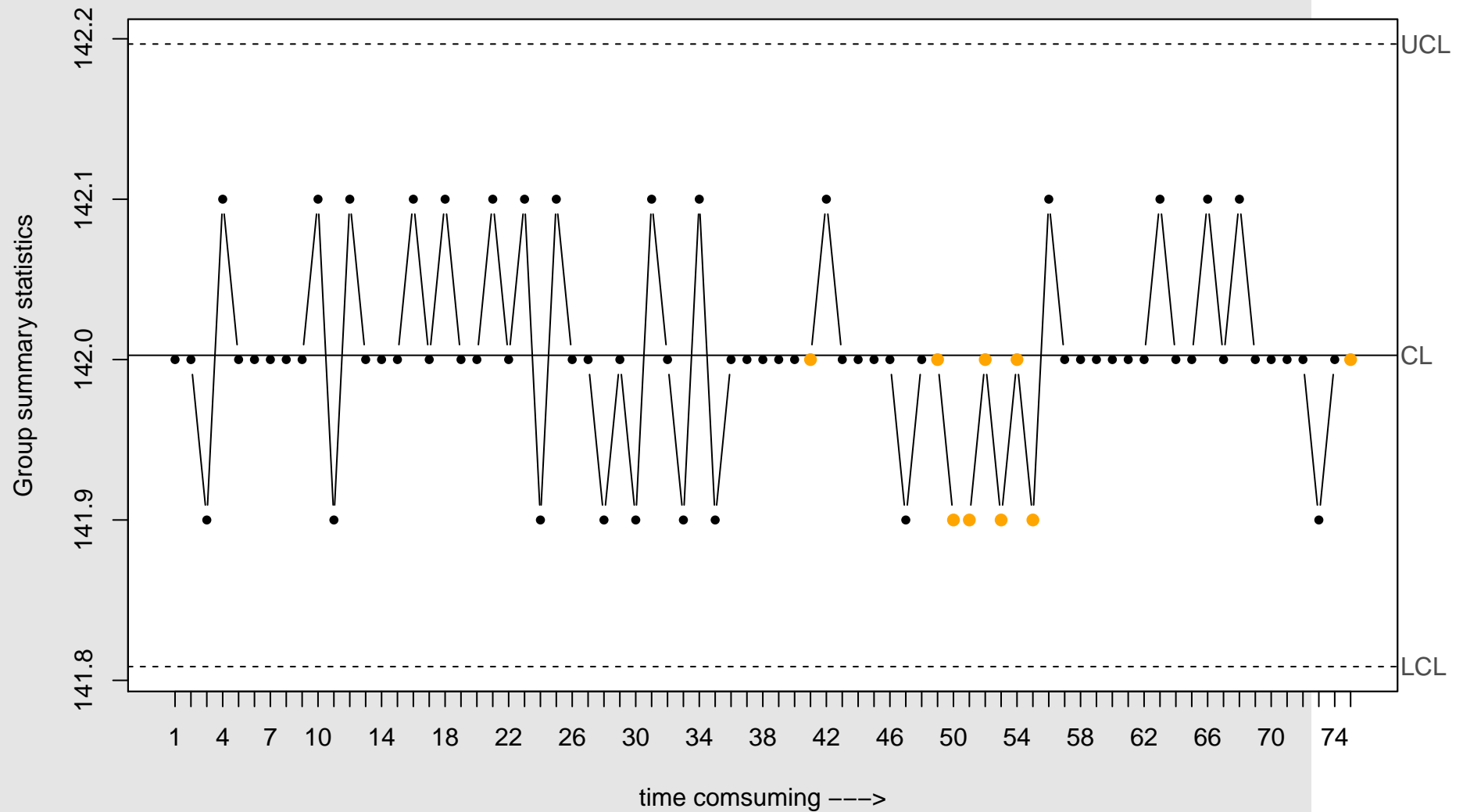
Number of groups = 75  
Center = 140.0013  
StdDev = 0.05151428

LCL = 139.8468  
UCL = 140.1559

Number beyond limits = 0  
Number violating runs = 25



## 2th column point of this product



Number of groups = 75

Center = 142.0027

StdDev = 0.06469235

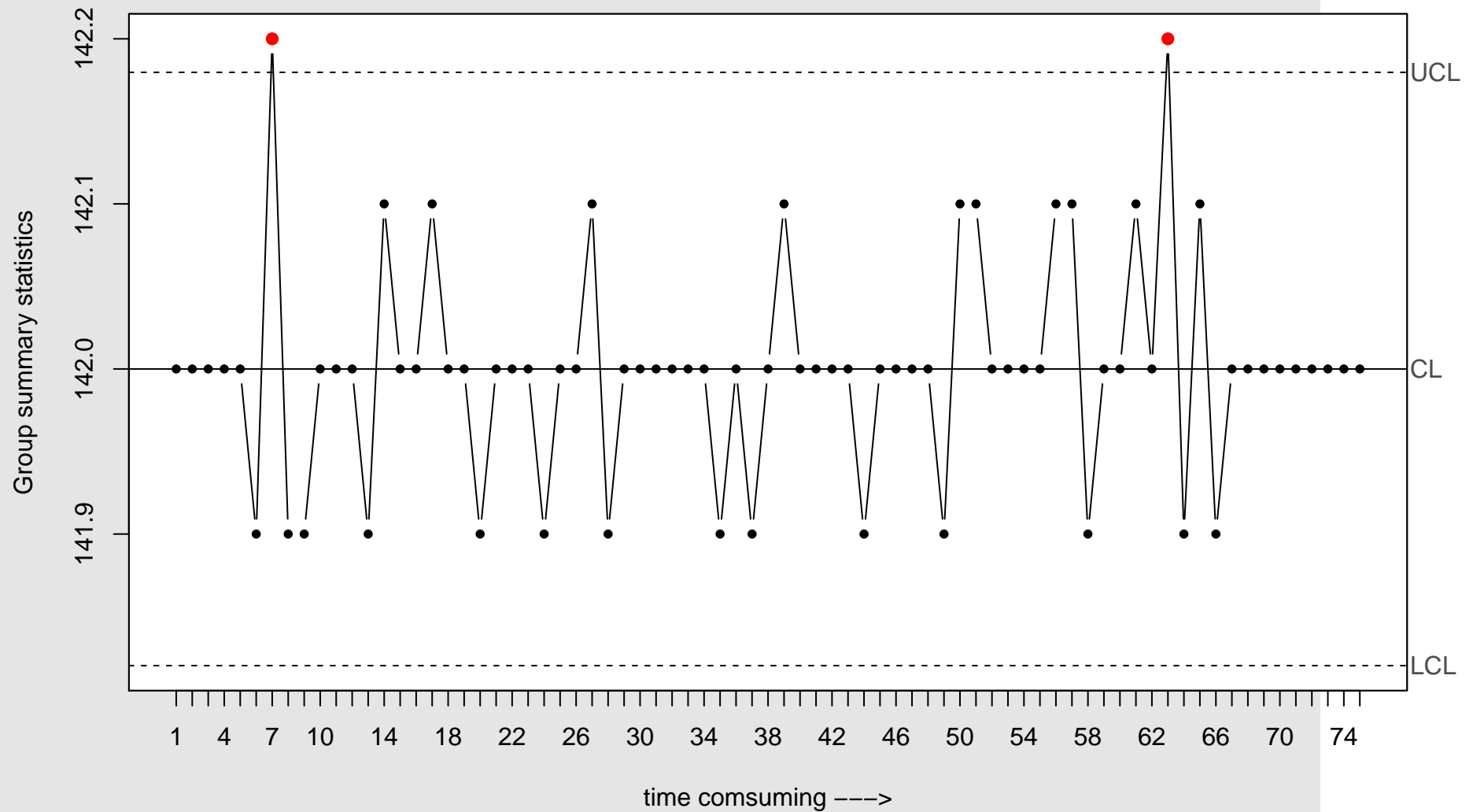
LCL = 141.8086

UCL = 142.1967

Number beyond limits = 0

Number violating runs = 9

### 3th column point of this product



Number of groups = 75

Center = 142

StdDev = 0.05990033

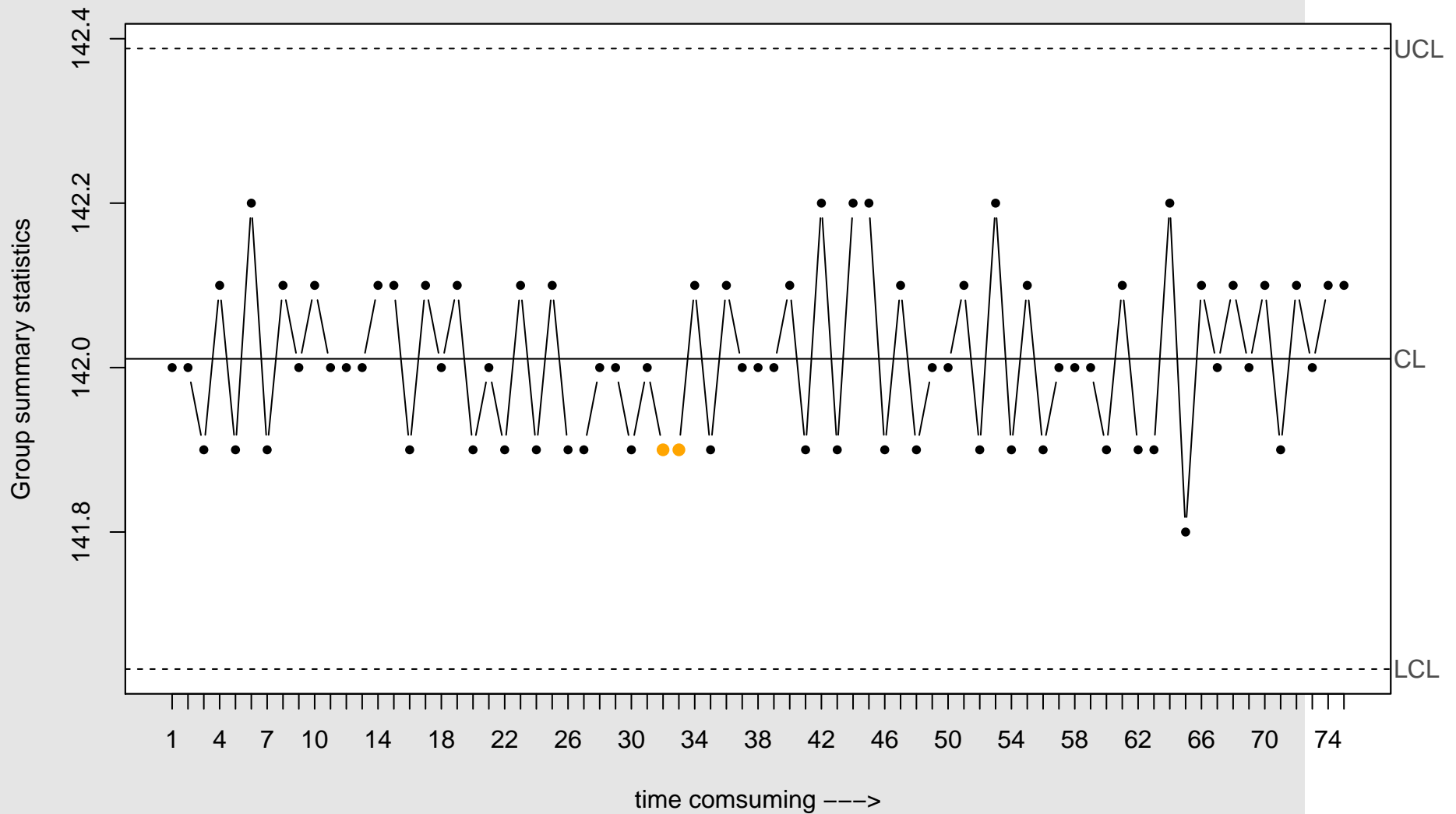
LCL = 141.8203

UCL = 142.1797

Number beyond limits = 2

Number violating runs = 0

### 4th column point of this product



Number of groups = 75

Center = 142.0107

StdDev = 0.1257907

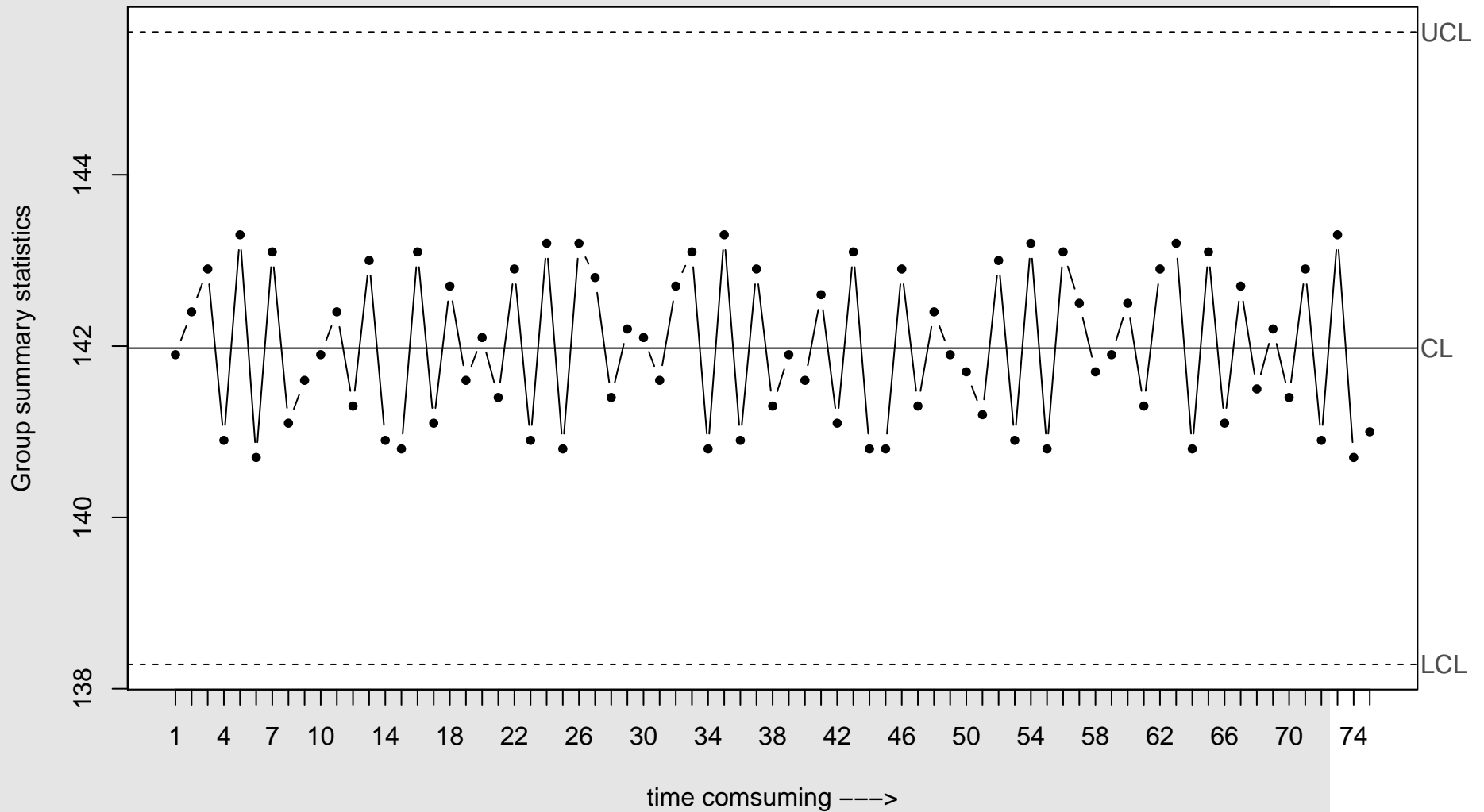
LCL = 141.6333

UCL = 142.388

Number beyond limits = 0

Number violating runs = 2

### 5th column point of this product



Number of groups = 75

Center = 141.976

StdDev = 1.230353

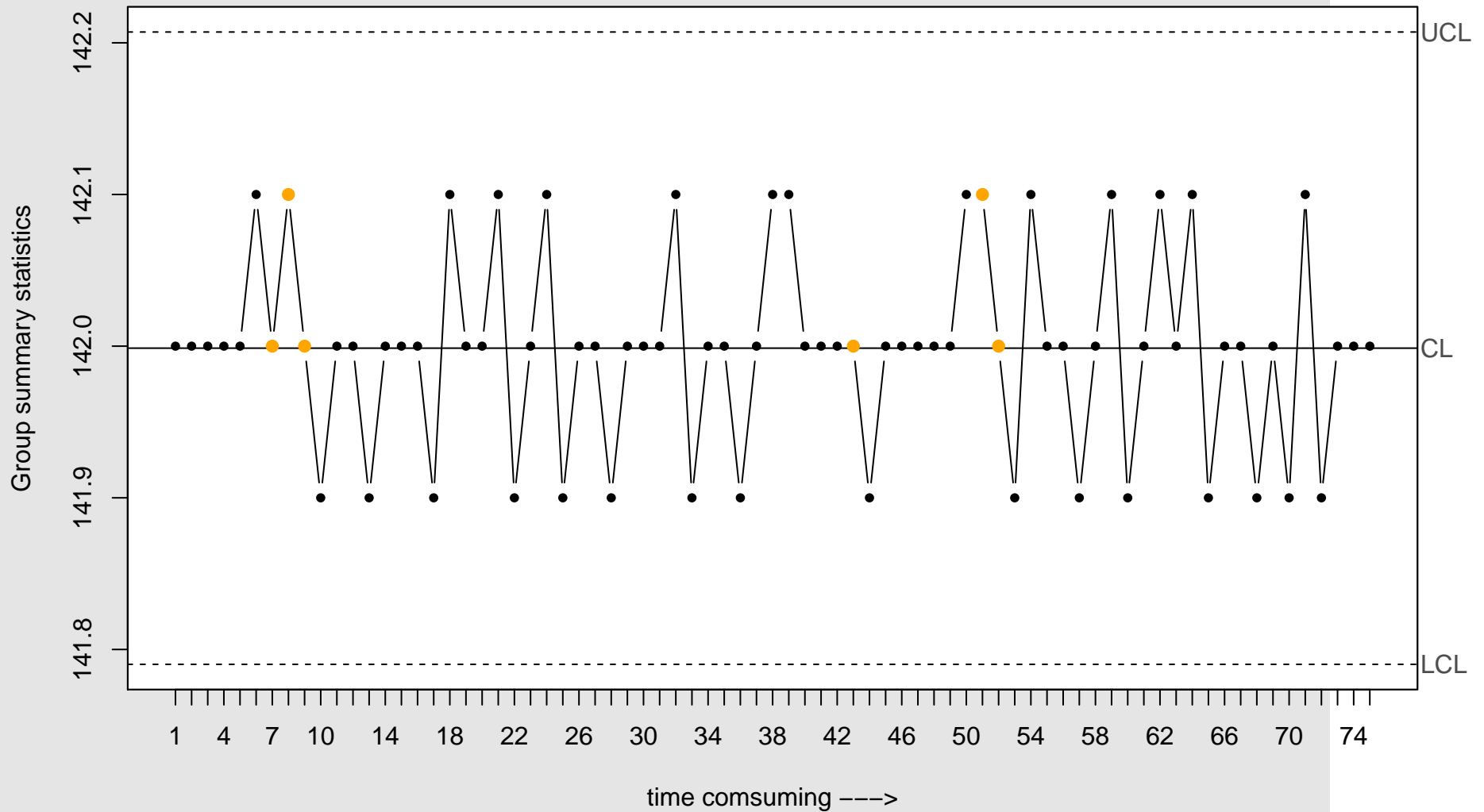
LCL = 138.2849

UCL = 145.6671

Number beyond limits = 0

Number violating runs = 0

# 6th column point of this product

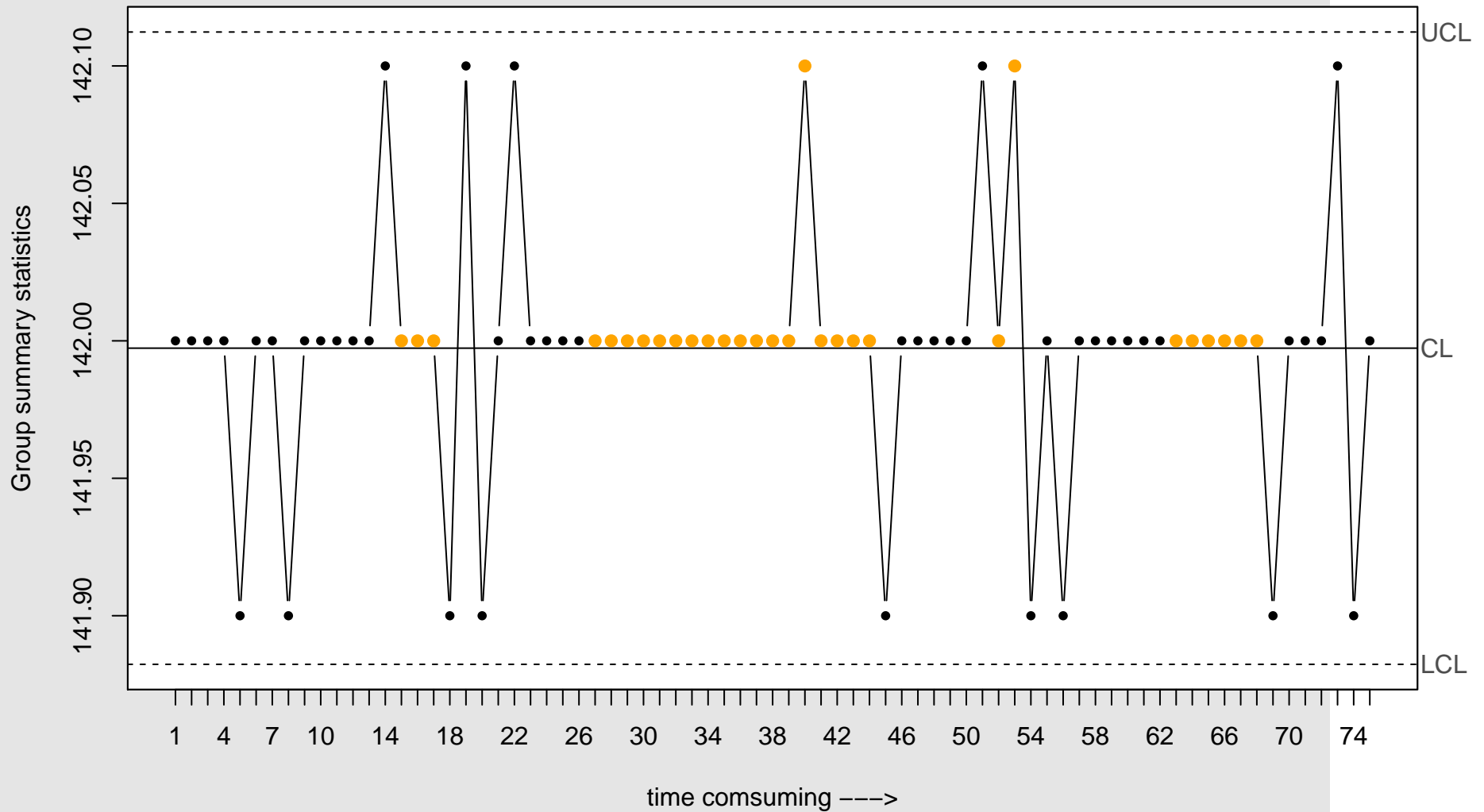


Number of groups = 75  
Center = 141.9987  
StdDev = 0.06948438

LCL = 141.7902  
UCL = 142.2071

Number beyond limits = 0  
Number violating runs = 6

### 7th column point of this product

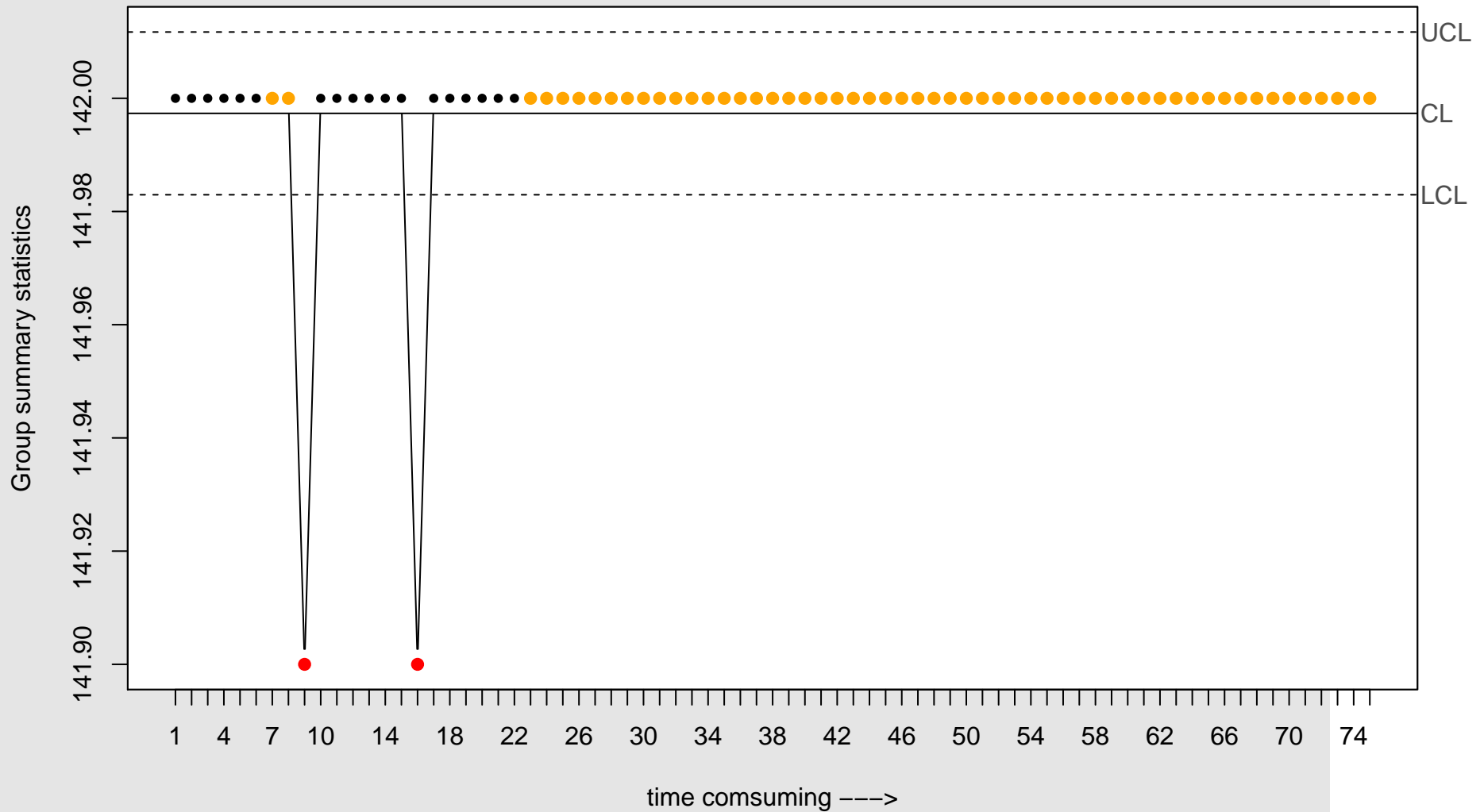


Number of groups = 75  
Center = 141.9973  
StdDev = 0.03833621

LCL = 141.8823  
UCL = 142.1123

Number beyond limits = 0  
Number violating runs = 29

### 8th column point of this product

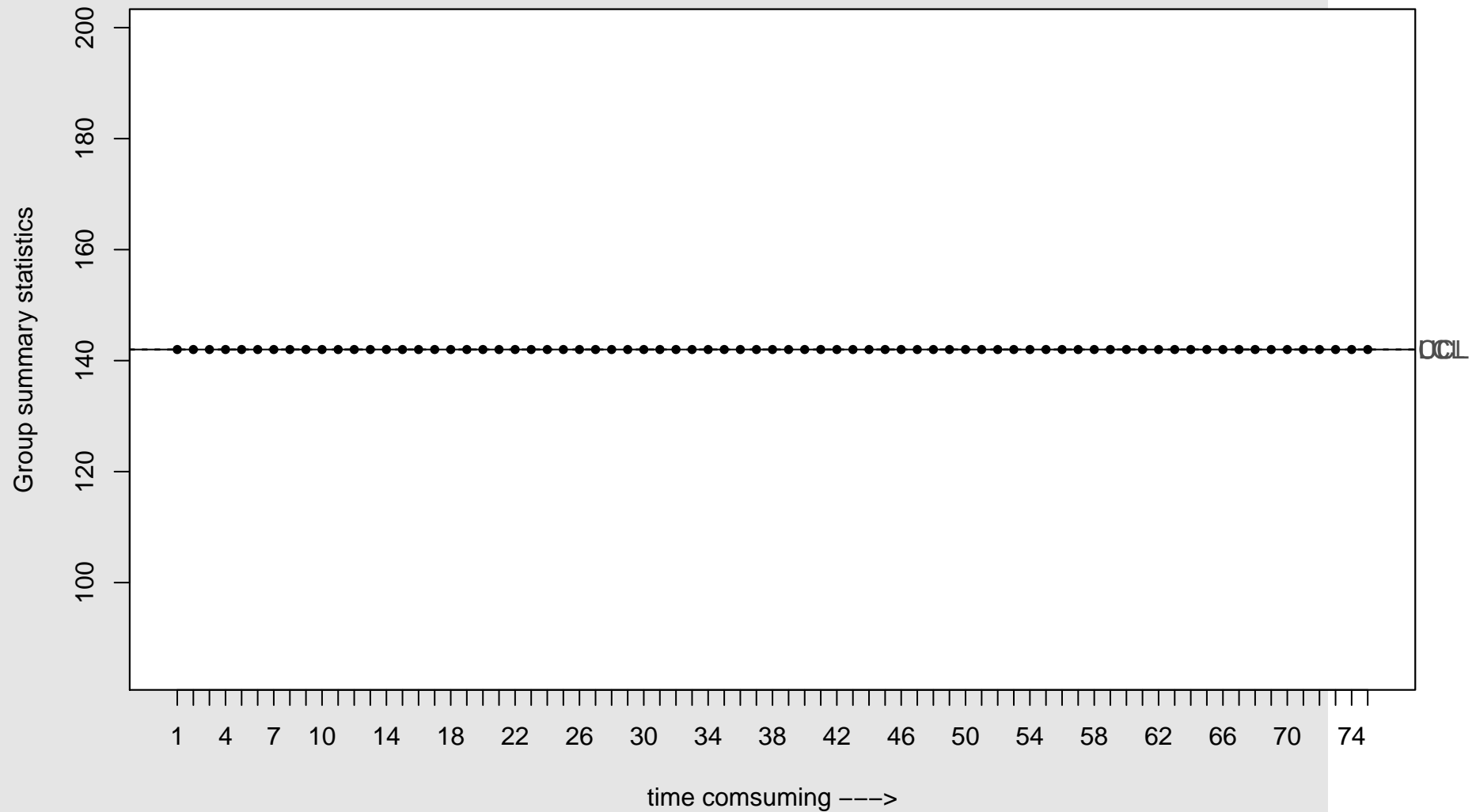


Number of groups = 75  
Center = 141.9973  
StdDev = 0.004792026

LCL = 141.983  
UCL = 142.0117

Number beyond limits = 2  
Number violating runs = 55

### 9th column point of this product



Number of groups = 75

Center = 142

StdDev = 0

LCL = 142

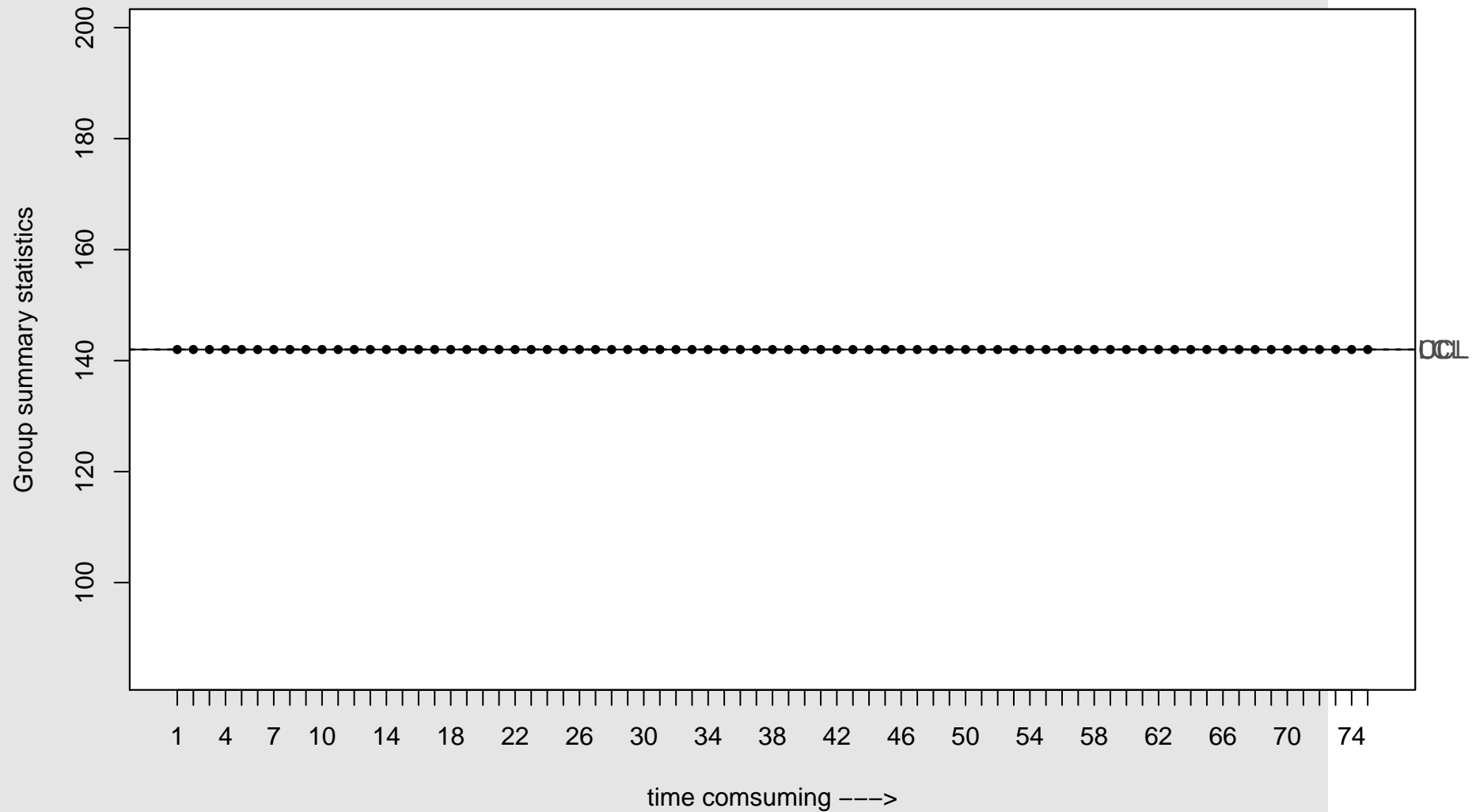
UCL = 142

Number beyond limits = 0

Number violating runs = 0



### 10th column point of this product



Number of groups = 75

Center = 142

StdDev = 0

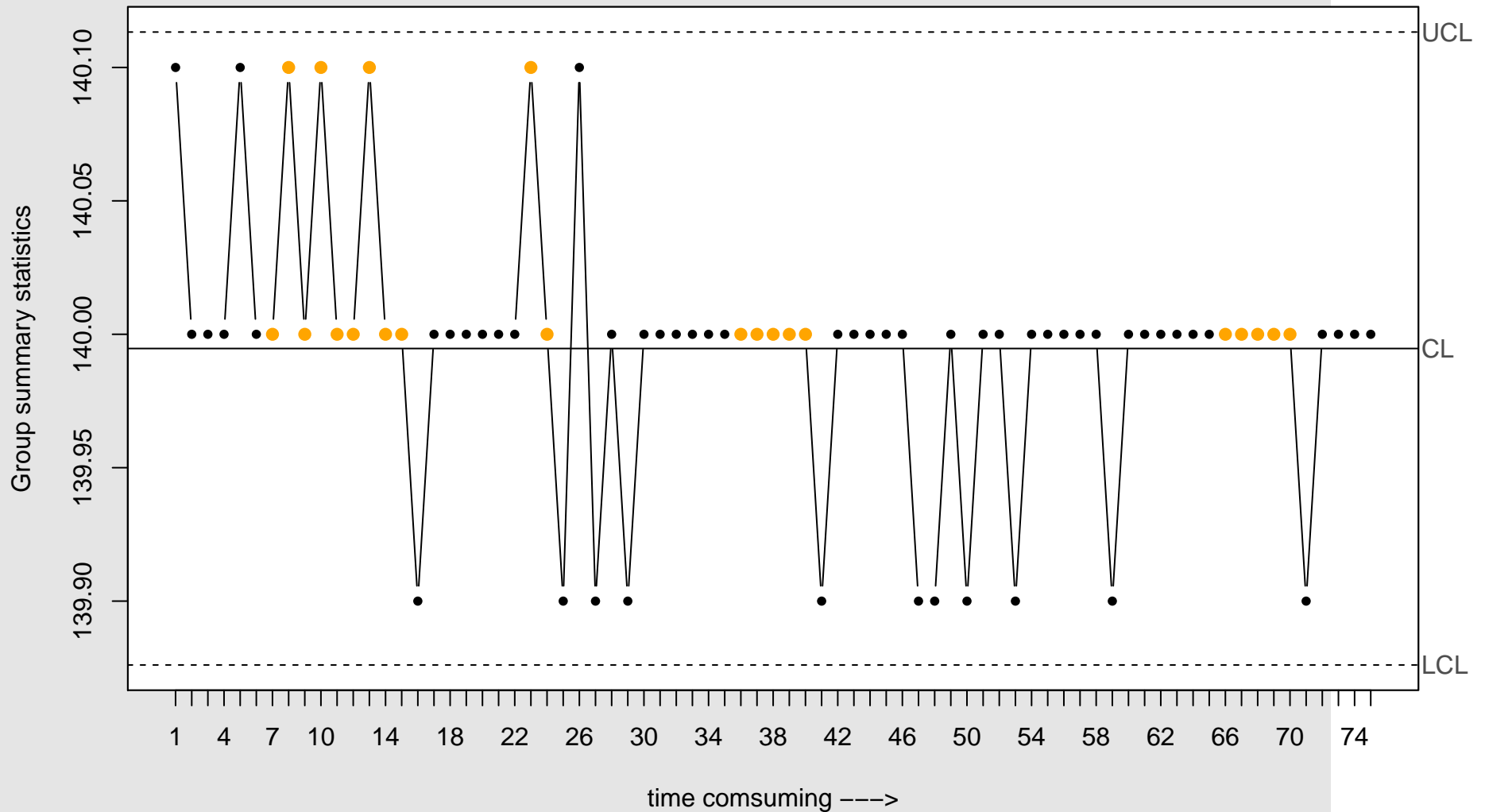
LCL = 142

UCL = 142

Number beyond limits = 0

Number violating runs = 0

### 11th column point of this product



Number of groups = 75

Center = 139.9947

StdDev = 0.03953422

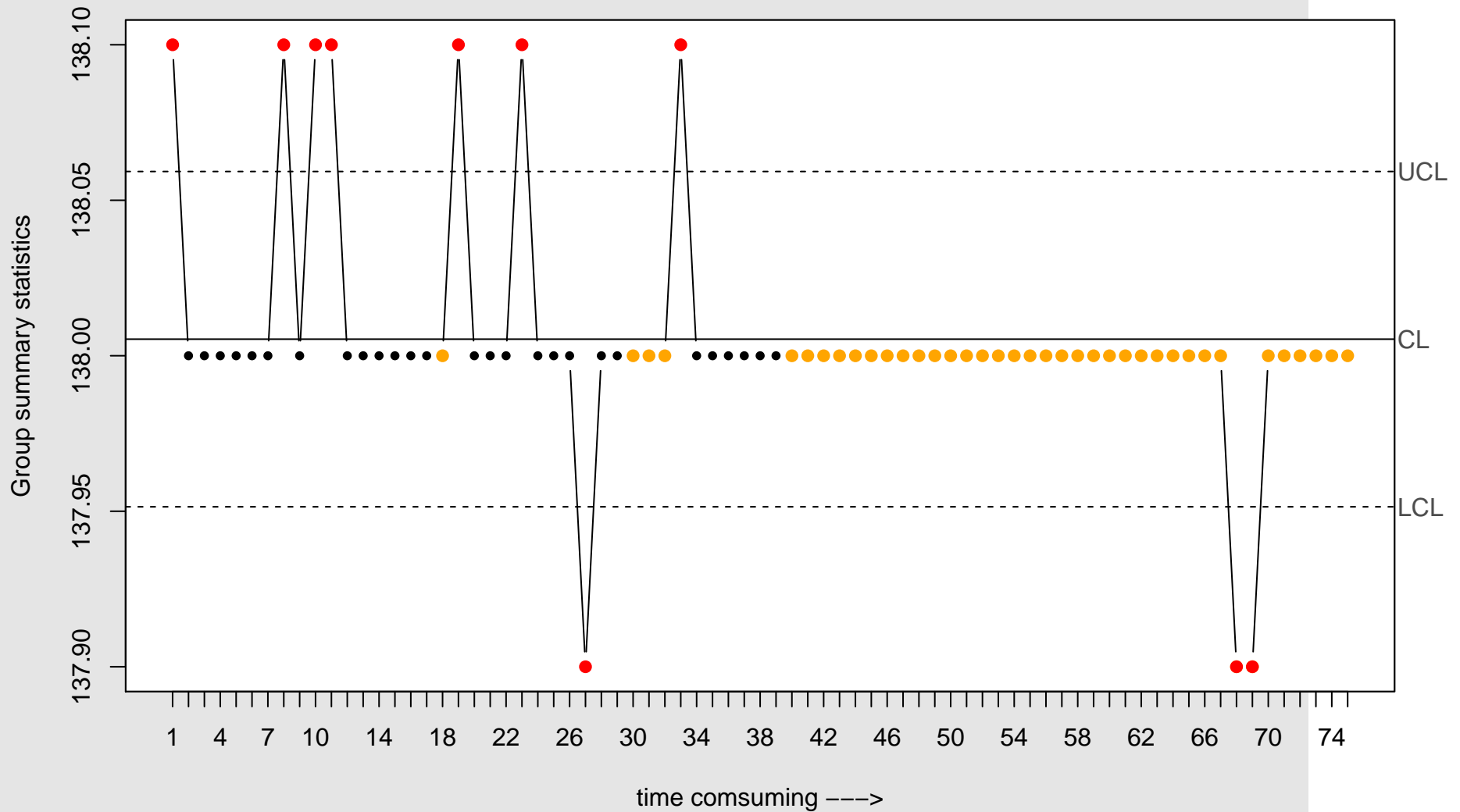
LCL = 139.8761

UCL = 140.1133

Number beyond limits = 0

Number violating runs = 21

### 12th column point of this product

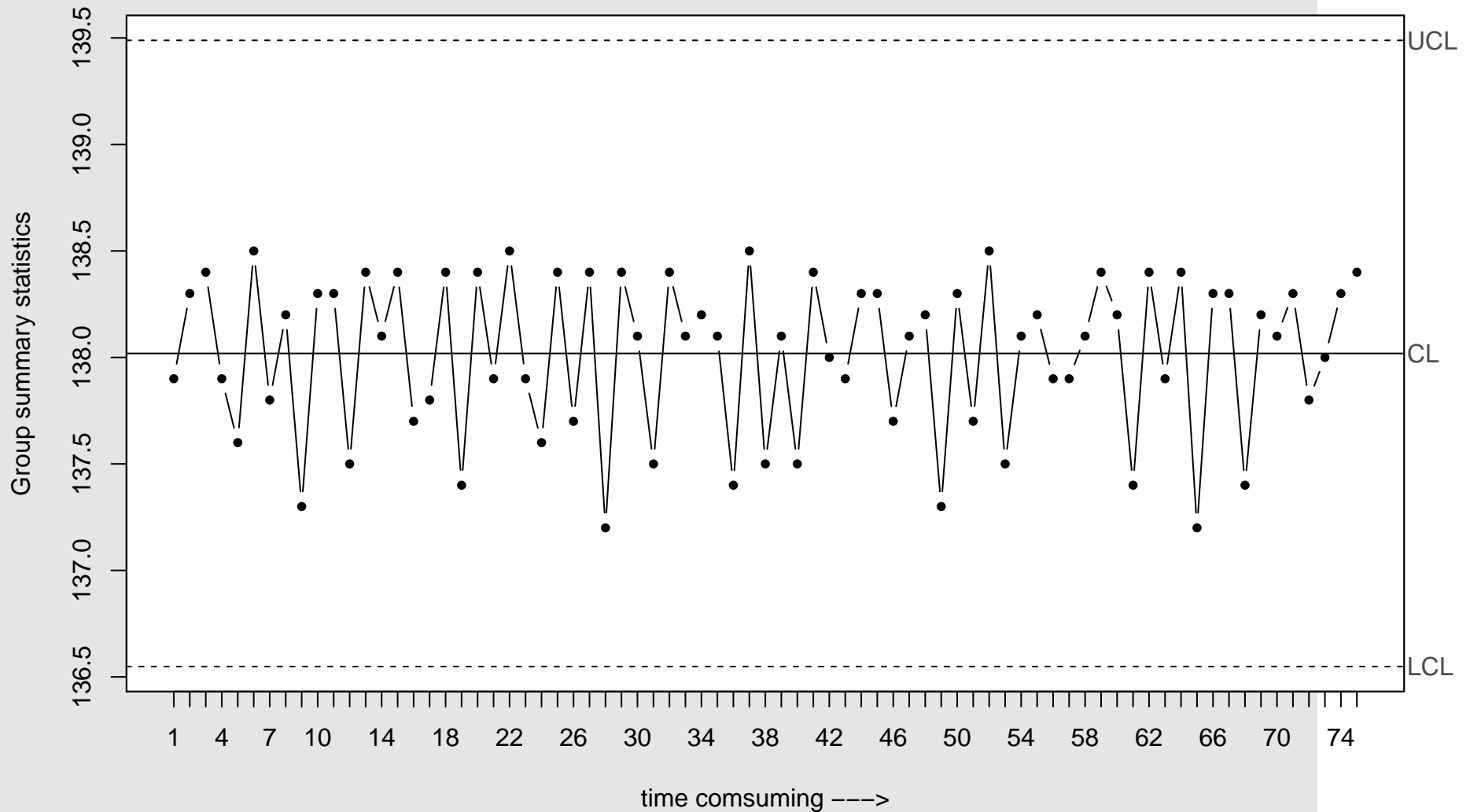


Number of groups = 75  
Center = 138.0053  
StdDev = 0.0179701

LCL = 137.9514  
UCL = 138.0592

Number beyond limits = 10  
Number violating runs = 40

### 13th column point of this product



Number of groups = 75

Center = 138.0187

StdDev = 0.4899847

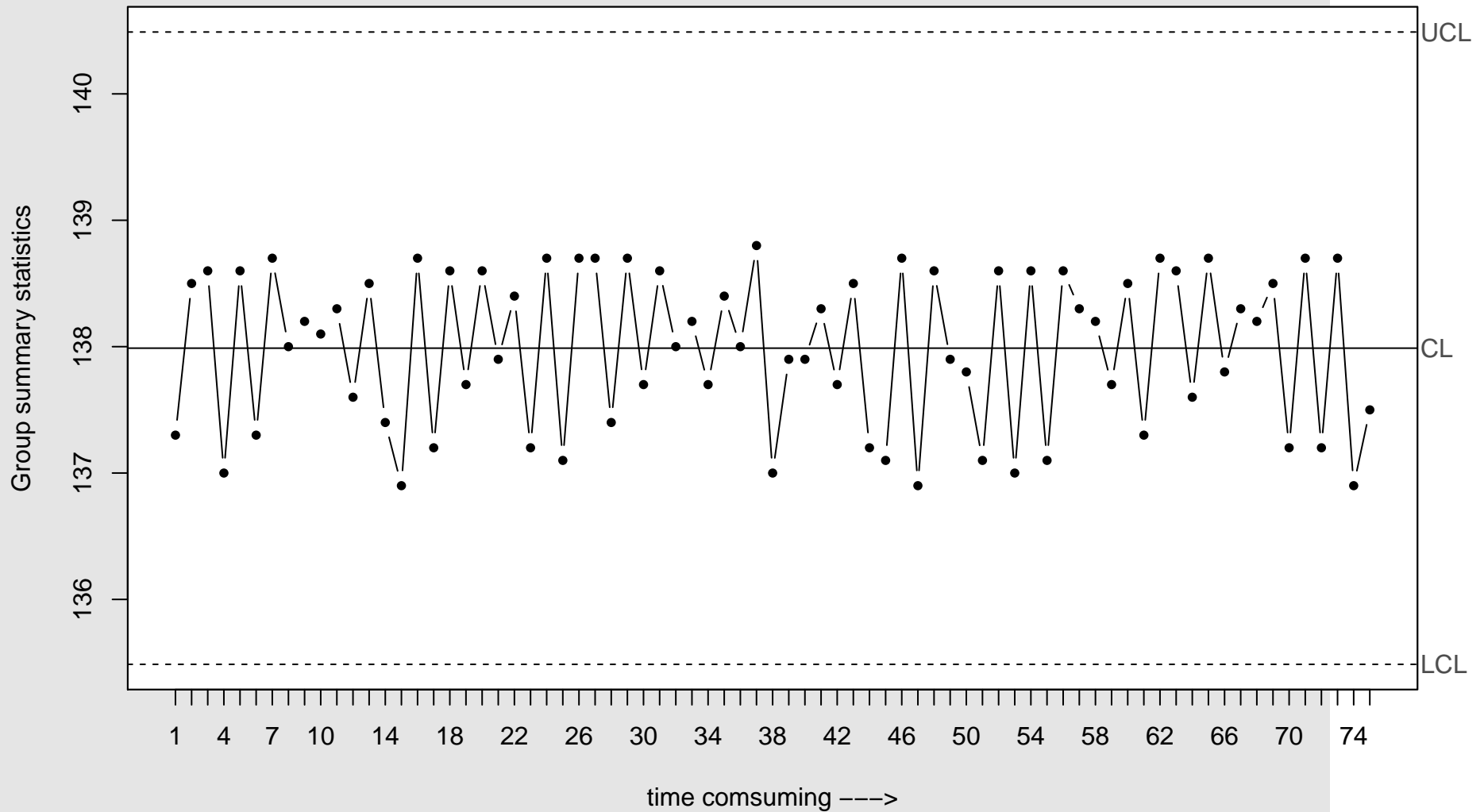
LCL = 136.5487

UCL = 139.4886

Number beyond limits = 0

Number violating runs = 0

### 14th column point of this product



Number of groups = 75

Center = 137.988

StdDev = 0.8338125

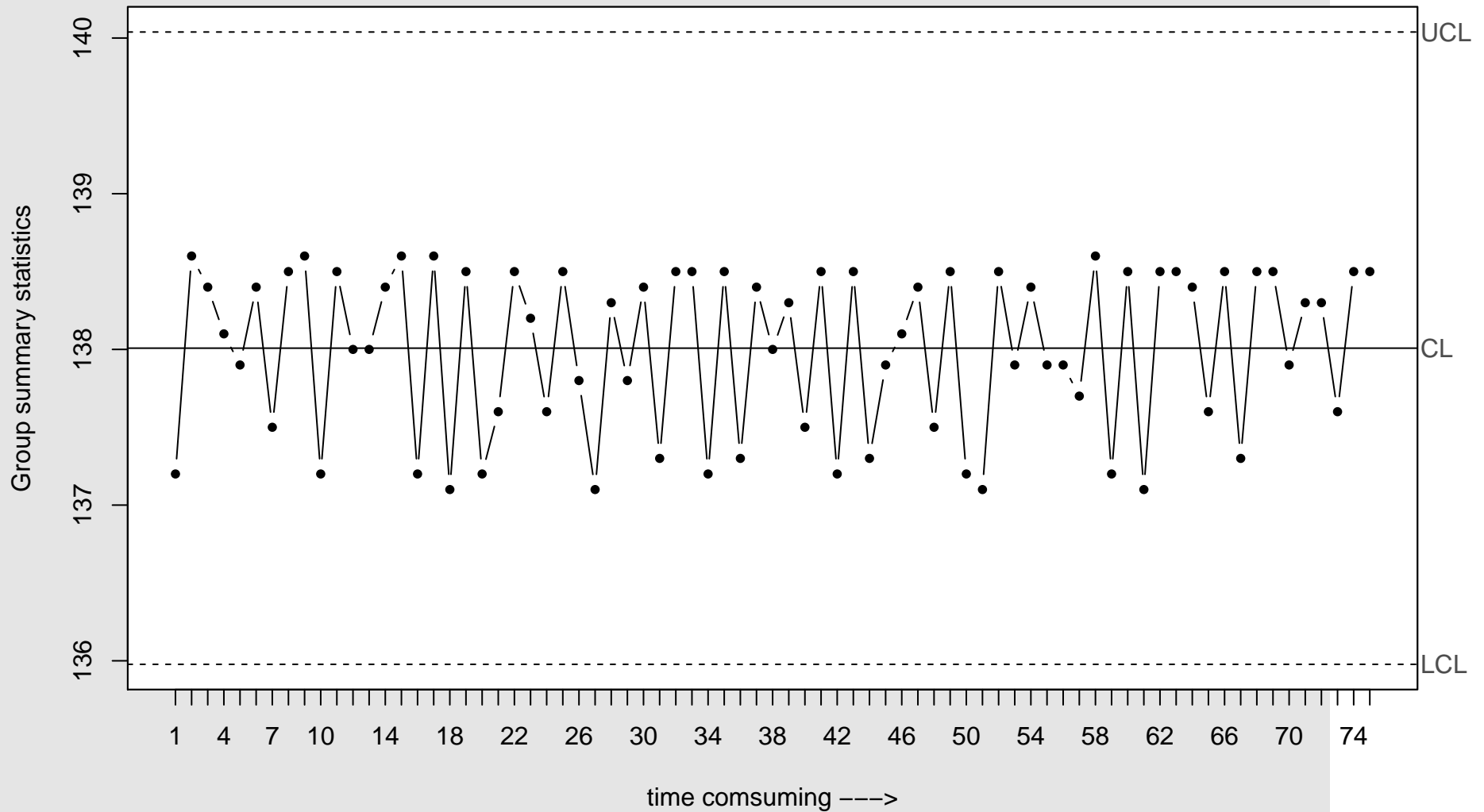
LCL = 135.4866

UCL = 140.4894

Number beyond limits = 0

Number violating runs = 0

### 15th column point of this product

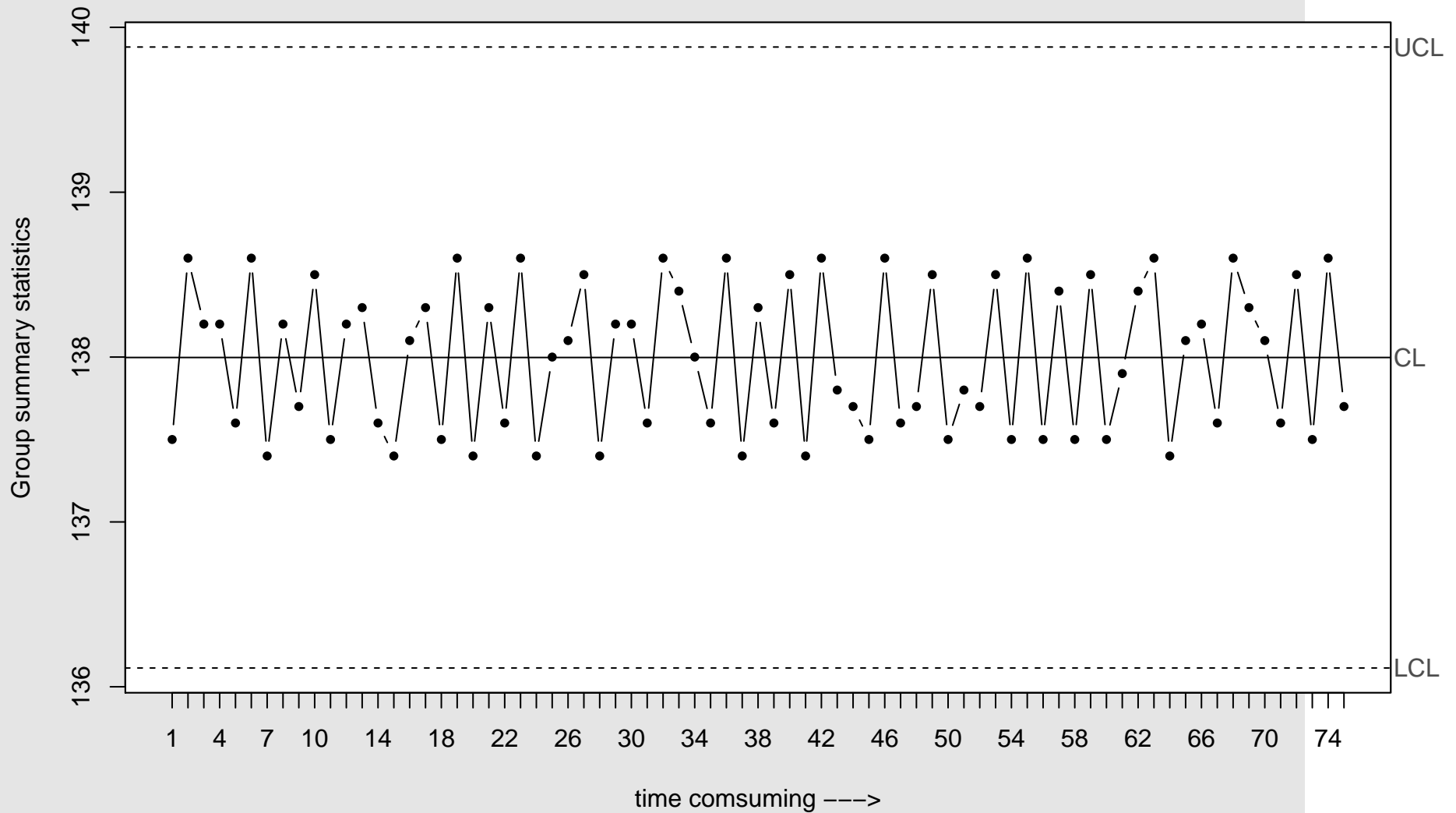


Number of groups = 75  
Center = 138.008  
StdDev = 0.6768737

LCL = 135.9774  
UCL = 140.0386

Number beyond limits = 0  
Number violating runs = 0

### 16th column point of this product



Number of groups = 75

Center = 137.9973

StdDev = 0.6277554

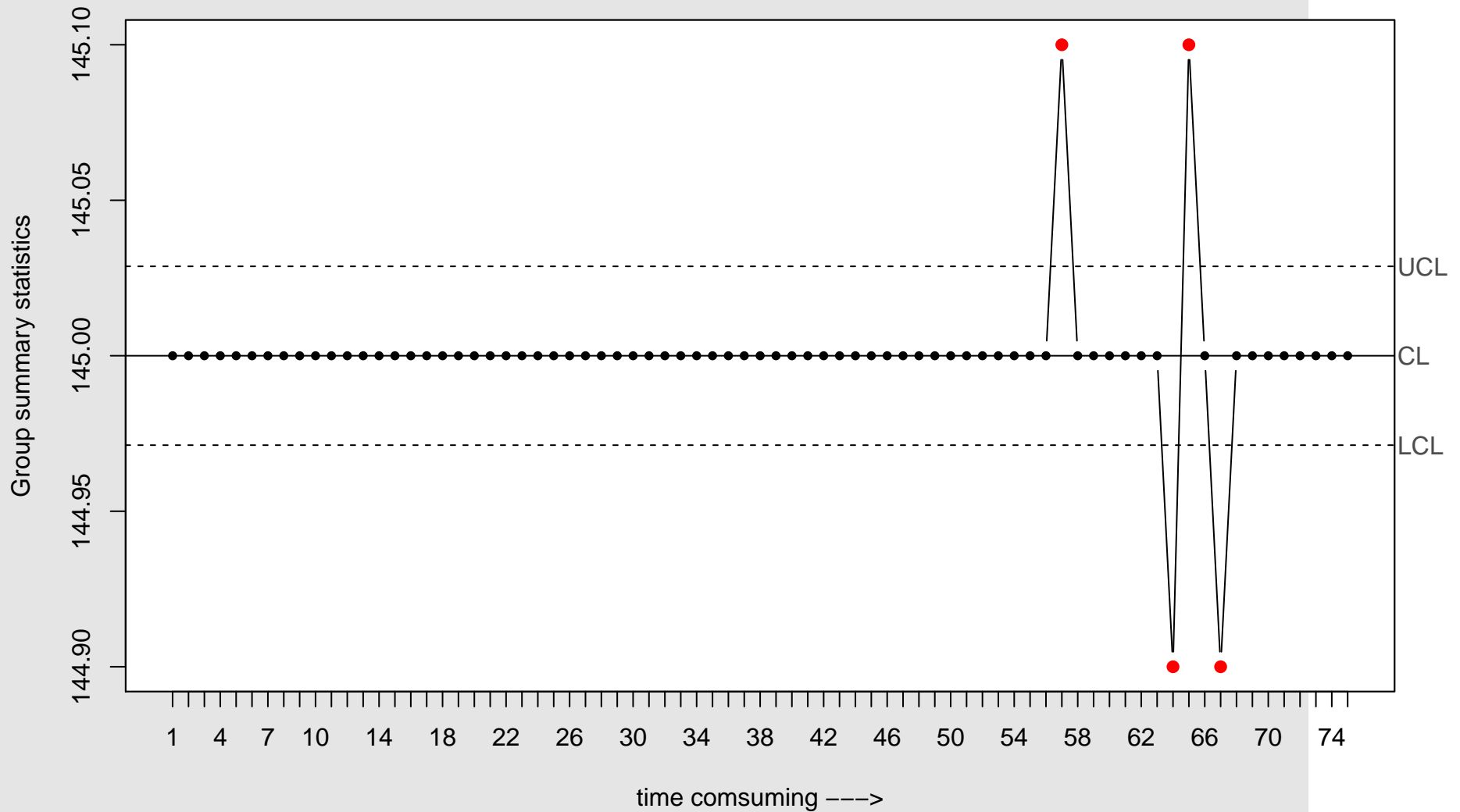
LCL = 136.1141

UCL = 139.8806

Number beyond limits = 0

Number violating runs = 0

### 17th column point of this product



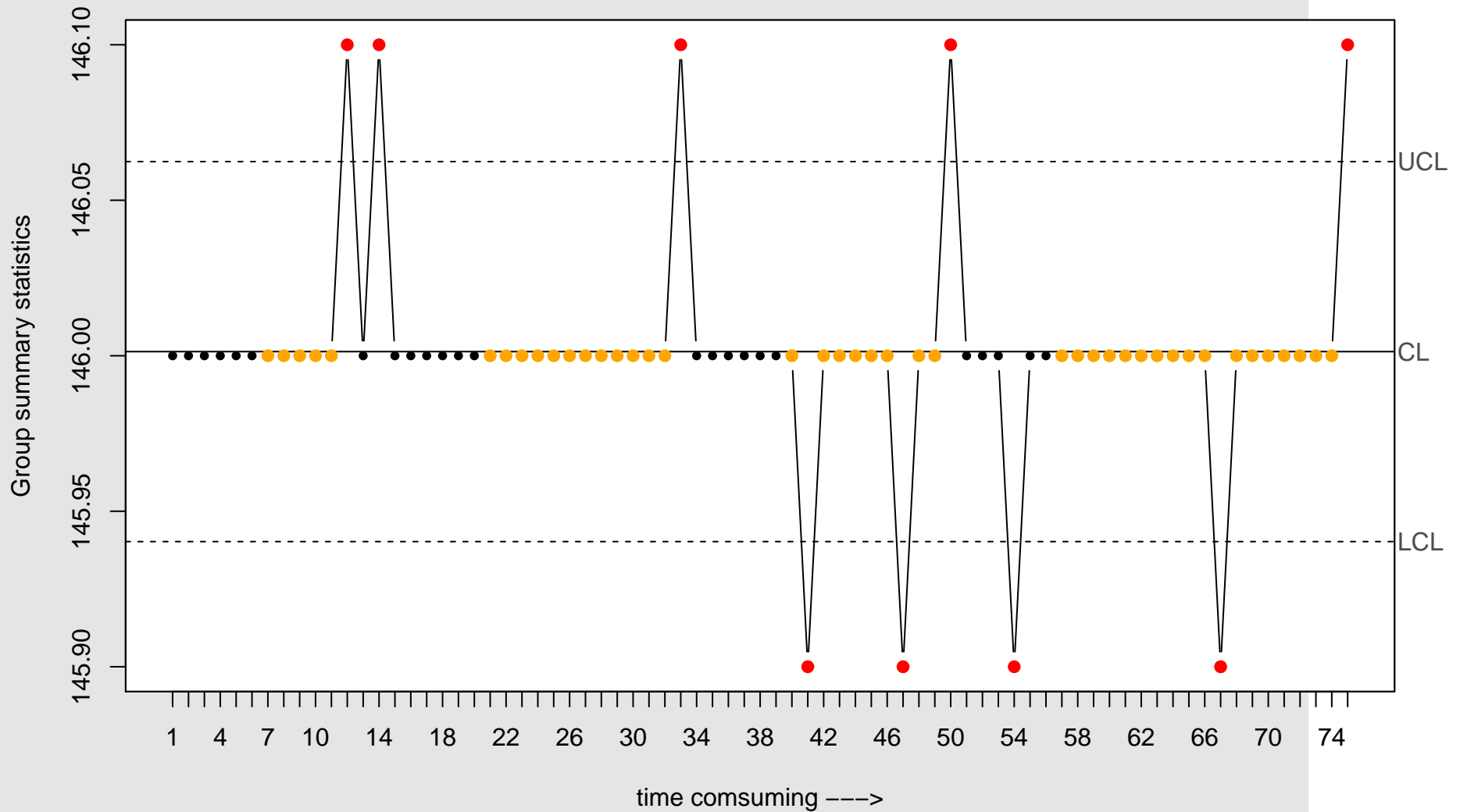
Number of groups = 75  
Center = 145  
StdDev = 0.009584052

LCL = 144.9712  
UCL = 145.0288

Number beyond limits = 4  
Number violating runs = 0



### 18th column point of this product



Number of groups = 75  
Center = 146.0013  
StdDev = 0.02036611

LCL = 145.9402  
UCL = 146.0624

Number beyond limits = 9  
Number violating runs = 45