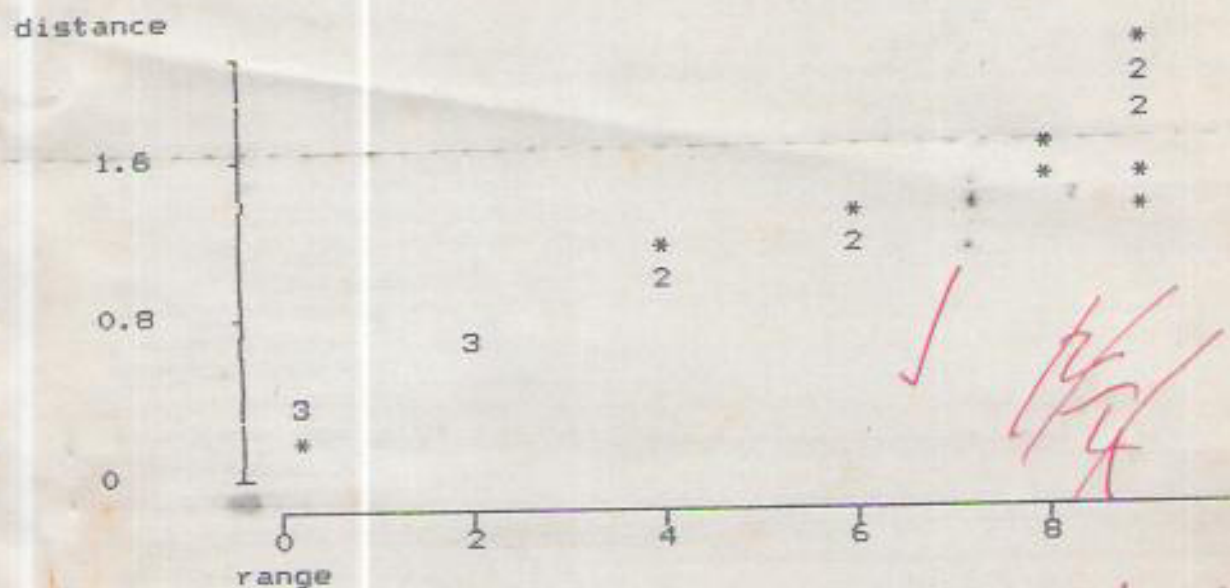


```
linefit(distance, range)
 $\alpha = 0.3109$  /  $\beta = 0.1371$  / RSS = 3.615
Fit: distance =  $0.3109 + 0.1371 * (\text{range})$ 
sum(distance -  $0.3109 - 0.1371 * \text{range}$ )
0.0033
```

```
del(distance)
Delete how many? 1
Starting at which element? 1
del(range)
Delete how many? 1
Starting at which element? 6
del(range)
Delete how many? 1
Starting at which element? 1
plot(distance, range)
```



```
linefit(distance, range)
 $\alpha = 0.2874$  /  $\beta = 0.1608$  / RSS = 0.5456
Fit: distance =  $0.2874 + 0.1608 * (\text{range})$ 
sum(distance -  $0.2874 - 0.1608 * \text{range}$ )
-0.0006
```

You should still use the line through the origin

Alternative working: assuming that the regression line does not pass through the origin. Then the sum of residuals is ^{almost} zero, and this assumption of the regression model is satisfied. The variance though, is still not constant over the range. The independence over the range of the residuals seems plausible. Given these observations, a regression model seems a good route (both before and after the outliers are removed).