

Anova: Single Factor

SUMMARY				
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Supplier 1	5	70	14	11
Supplier 2	5	63	12.6	4.3
Supplier 3	5	89	17.8	4.2
Supplier 4	5	80	16	6.5

ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	77.8	3	25.93	3.99	0.03	3.24
Within Groups	104	16	6.5			
Total	181.8	19				

Figure 14.16

for delivery times. Using Excel for two-way ANOVA is very similar, except you have to decide between using 'Anova: Two-Factor Without Replication' and 'Anova: Two-Factor With Replication'. The difference is that with ANOVA with replication you are gathering multiple samples from, say, the same factory (i.e. you are replicating the data – highly recommended).

Using SPSS for ANOVA

You have been asked to rate the performance of five sales offices located in different cities: Bristol, Birmingham, London, Glasgow and Manchester. You have collected five months of data concerning the sales of a particular brand of computer sold at each of the offices, and the data is given in Table 14.11. You have to inform the sales director if all offices are performing at the same level.

Table 14.11

Office	Sales
1	68
1	72
1	75
1	42
1	53
2	72
2	52
2	63
2	55

(Continued)