

Homework Solutions

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Exercise 17

- (a) The values of the explanatory variables are set by the experimenters.
- (b) The experimental units are metal clutch components.
- (c) The response variable is the lifetime of the metal clutch component.
- (d) The explanatory variables are the type of oven (four levels) and the temperature (three levels).
- (e) There are 12 treatments (4×3).
- (f) Twenty-four units (2 units for each treatment).
- (g) The design-layout table:

		Temperature		
		temp 1	temp 2	temp 3
Oven Type	type 1	2 clutches	2 clutches	2 clutches
	type 2	2 clutches	2 clutches	2 clutches
	type 3	2 clutches	2 clutches	2 clutches
	type 4	2 clutches	2 clutches	2 clutches