

TABLE 14.12

The F Table for a Two-Way Between-Subjects ANOVA
(with formulas for completing the table given)

Source of Variation	SS	df	MS	F
Factor A (exposure)	150	$p - 1$	$\frac{SS_A}{df_A}$	$F_A = \frac{MS_A}{MS_E}$
Factor B (buffet)	0	$q - 1$	$\frac{SS_B}{df_B}$	$F_B = \frac{MS_B}{MS_E}$
$A \times B$ (exposure \times buffet)	54	$(p - 1)(q - 1)$	$\frac{SS_{A \times B}}{df_{A \times B}}$	$F_{A \times B} = \frac{MS_{A \times B}}{MS_E}$
Error (within groups)	150	$pq(n - 1)$	$\frac{SS_E}{df_E}$	
Total	354	$npq - 1$		

Notice that mean square error (MS_E) is the denominator for each hypothesis test.