

# JMP Output for Reaction Time Experiment

**Response: Reaction Time**

**Model Effects: Ingredient, Day, Batch**

## Summary of Fit

RSquare	0.914573
RSquare Adj	0.829146
Root Mean Square Error	1.388044
Mean of Response	6.12
Observations (or Sum Wgts)	25

## Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	12	247.52000	20.6267	10.7059
Error	12	23.12000	1.9267	<b>Prob &gt; F</b>
C. Total	24	270.64000		0.0001

## Effect Tests

Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Ingredient	4	4	239.04000	31.0173	<.0001
Batch	4	4	3.44000	0.4464	0.7732
Day	4	4	5.04000	0.6540	0.6352

## Effect Details

### Ingredient

#### Least Squares Means Table

Level	Least Sq Mean	Std Error	Mean
A	9.4000000	0.62075223	9.40000
B	6.4000000	0.62075223	6.40000
C	9.6000000	0.62075223	9.60000
D	2.8000000	0.62075223	2.80000
E	2.4000000	0.62075223	2.40000

**LSMeans Differences Tukey HSD**

$\alpha=0.050$   $Q=3.18738$

LSMean[i] By LSMean[j]

Mean[i]-Mean[j] Std Err Dif Lower CL Dif Upper CL Dif	A	B	C	D	E
A	0 0 0 0	3 0.87788 0.20187 5.79813	-0.2 0.87788 -2.9981 2.59813	6.6 0.87788 3.80187 9.39813	7 0.87788 4.20187 9.79813
B	-3 0.87788 -5.7981 -0.2019	0 0 0 0	-3.2 0.87788 -5.9981 -0.4019	3.6 0.87788 0.80187 6.39813	4 0.87788 1.20187 6.79813
C	0.2 0.87788 -2.5981 2.99813	3.2 0.87788 0.40187 5.99813	0 0 0 0	6.8 0.87788 4.00187 9.59813	7.2 0.87788 4.40187 9.99813
D	-6.6 0.87788 -9.3981 -3.8019	-3.6 0.87788 -6.3981 -0.8019	-6.8 0.87788 -9.5981 -4.0019	0 0 0 0	0.4 0.87788 -2.3981 3.19813
E	-7 0.87788 -9.7981 -4.2019	-4 0.87788 -6.7981 -1.2019	-7.2 0.87788 -9.9981 -4.4019	-0.4 0.87788 -3.1981 2.39813	0 0 0 0

Level		Least Sq Mean
C	A	9.6000000
A	A	9.4000000
B	B	6.4000000
D	C	2.8000000
E	C	2.4000000

Levels not connected by same letter are significantly different.

**Batch**

**Least Squares Means Table**

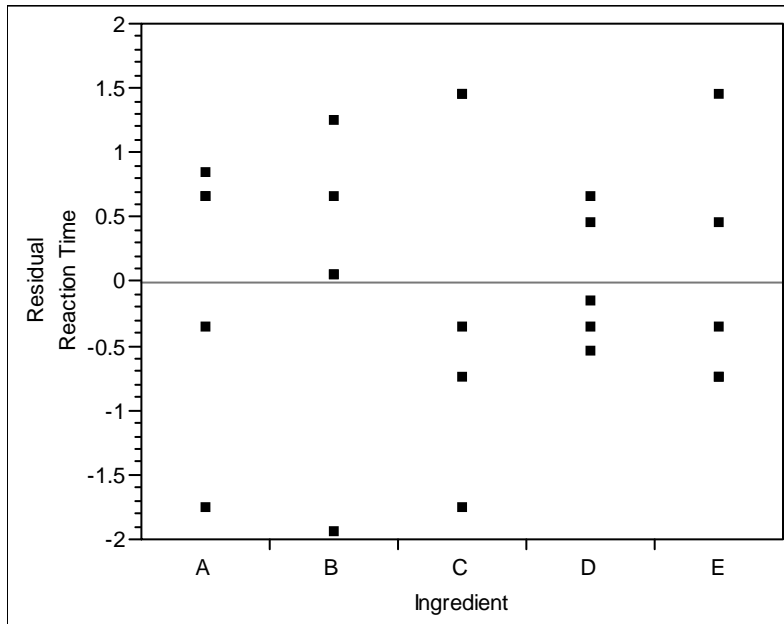
Level	Least Sq Mean	Std Error	Mean
1	5.600000	0.62075223	5.60000
2	6.600000	0.62075223	6.60000
3	6.200000	0.62075223	6.20000
4	6.400000	0.62075223	6.40000
5	5.800000	0.62075223	5.80000

**Day**

**Least Squares Means Table**

Level	Least Sq Mean	Std Error	Mean
1	6.600000	0.62075223	6.60000
2	6.000000	0.62075223	6.00000
3	6.000000	0.62075223	6.00000
4	5.400000	0.62075223	5.40000
5	6.600000	0.62075223	6.60000

**Oneway Analysis of Residual Reaction Time By Ingredient**



# Distributions

## Residual Reaction Time

