

## The MEANS Procedure

#### width=18

	Analysis Variable : yield						
N	Mean	Mean Std Dev Minimum		Maximum			
6	35.1500000	1.3095801	33.6000000	37.1000000			

### width=24

	Α	nalysis Varia	ble : yield		
N	Mean	Mean Std Dev Minimum		Maximum	
6	31.6333333	1.6476246	30.3000000	34.5000000	

### width=30

	Α	nalysis Varia	ble : yield	
N	Mean	Std Dev	Minimum	Maximum
6	30.1666667	1.7385818	27.9000000	33.0000000

#### width=36

Analysis Variable : yield						
N	Mean	Std Dev	Minimum Maxin			
6	29.5333333	2.1134490	26.9000000	32.3000000		

#### width=42

	Analysis Variable : yield						
N	Mean	Mean Std Dev Minimum		Maximum			
6	30.0333333	1.9866219	28.3000000	33.4000000			

Class Level Information			
Class	Levels	Values	
width	5	18 24 30 36 42	

Number of Observations Read	30
Number of Observations Used	30

## **Dependent Variable: yield**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	125.6613333	31.4153333	9.90	<.0001
Error	25	79.3283333	3.1731333		
Corrected Total	29	204.9896667			

R-Square	Coeff Var	Root MSE	yield Mean
0.613013	5.690541	1.781329	31.30333

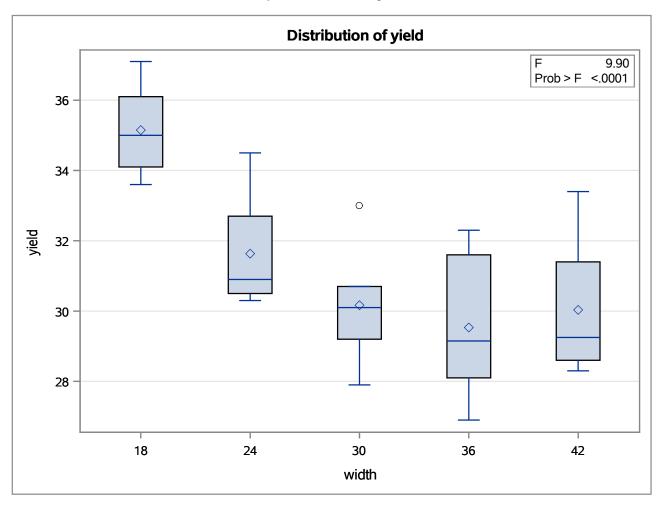
Source	DF	Type I SS	Mean Square	F Value	Pr > F
width	4	125.6613333	31.4153333	9.90	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
width	4	125.6613333	31.4153333	9.90	<.0001

Parameter		Estimate		Standard Error	t Value	Pr >  t
Interce	pt	30.03333333	В	0.72722456	41.30	<.0001
width	18	5.11666667	В	1.02845083	4.98	<.0001
width	24	1.60000000	В	1.02845083	1.56	0.1323
width	30	0.13333333	В	1.02845083	0.13	0.8979
width	36	-0.50000000	В	1.02845083	-0.49	0.6311
width	42	0.00000000	В			

**Note:** The X'X matrix has been found to be singular, and a generalized inverse was used to solve the normal equations. Terms whose estimates are followed by the letter 'B' are not uniquely estimable.

The GLM Procedure



Class Level Information				
Class	Levels Values			
width	5	18 24 30 36 42		

Number of Observations Read	30
Number of Observations Used	30

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	125.6613333	31.4153333	9.90	<.0001
Error	25	79.3283333	3.1731333		
Corrected Total	29	204.9896667			

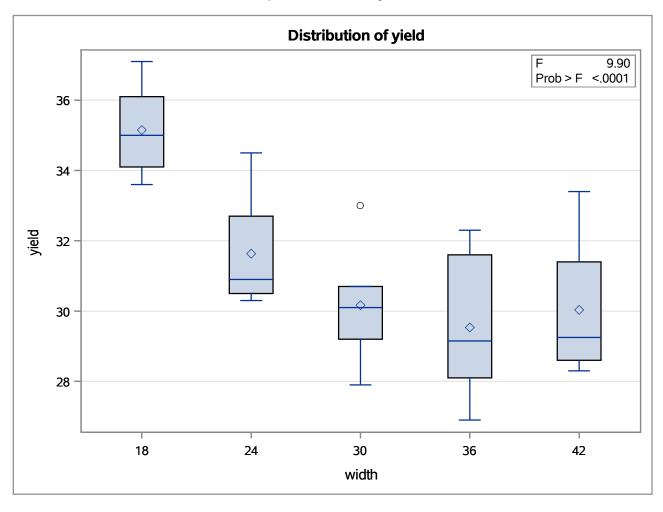
R-Square	Coeff Var	Root MSE	yield Mean
0.613013	5.690541	1.781329	31.30333

Source	DF	Type I SS	Mean Square	F Value	Pr > F
width	4	125.6613333	31.4153333	9.90	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
width	4	125.6613333	31.4153333	9.90	<.0001

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
linear	1	91.26666667	91.26666667	28.76	<.0001
quadratic	1	33.69333333	33.69333333	10.62	0.0032
cubic	1	0.50416667	0.50416667	0.16	0.6936
quartic	1	0.19716667	0.19716667	0.06	0.8052

The GLM Procedure



# The SAS System

10:50 Monday, March 11, 2019 **9** 

## The GLM Procedure

Number of Observations Read	30
Number of Observations Used	30

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	124.9600000	62.4800000	21.08	<.0001
Error	27	80.0296667	2.9640617		
Corrected Total	29	204.9896667			

R-Square	Coeff Var	Root MSE	yield Mean
0.609592	5.499878	1.721645	31.30333

Source	DF	Type I SS	Mean Square	F Value	Pr > F
width	1	91.26666667	91.26666667	30.79	<.0001
width*width	1	33.69333333	33.69333333	11.37	0.0023

Source	DF	Type III SS	Mean Square	F Value	Pr > F
width	1	47.42971729	47.42971729	16.00	0.0004
width*width	1	33.69333333	33.69333333	11.37	0.0023

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	52.03666667	4.47217613	11.64	<.0001
width	-1.26111111	0.31526206	-4.00	0.0004
width*width	0.01759259	0.00521797	3.37	0.0023

