

## Hw 1 birthweigh

1

Political Party	Age of mother	Smoking status of mother	Weight of mother before pregnancy	Weight of mother at delivery	Indicator if baby was breastfed	Weight of baby at birth	Length of baby at birth
White	24	non-smoker	105.41	129.97	Baby will be breastfed	3170	52.03
Black	28	light smoker	165.61	187.63	Baby will not be breastfed	3640	51.40
Black	25	non-smoker	175.87	190.72	Baby will be breastfed	3664	47.49
Black	24	heavy smoker	125.88	150.81	Baby will not be breastfed	2760	45.45
Hispanic	28	non-smoker	92.89	117.68	Baby will be breastfed	2950	50.51
Black	21	non-smoker	140.81	165.77	Baby will not be breastfed	3460	53.11
White	29	non-smoker	125.61	160.61	Baby will be breastfed	3350	48.34
Hispanic	27	heavy smoker	127.73	148.76	Baby will be breastfed	3200	48.04
Black	19	non-smoker	132.22	156.94	Baby will not be breastfed	3360	51.38
Hispanic	22	non-smoker	118.73	161.03	Baby will be breastfed	3493	49.52
Black	34	non-smoker	189.01	200.31	Baby will be breastfed	3600	48.02
White	25	heavy smoker	144.45	180.96	Baby will not be breastfed	3050	51.51
Black	25	non-smoker	125.19	152.75	Baby will not be breastfed	3050	52.72
Black	19	light smoker	137.82	172.25	Baby will not be breastfed	2400	46.96
Hispanic	35	non-smoker	140.96	174.85	Baby will not be breastfed	3940	48.09
White	23	heavy smoker	135.08	173.36	Baby will be breastfed	2650	49.82
White	20	non-smoker	112.59	140.75	Baby will not be breastfed	3800	51.25
Black	20	light smoker	128.19	159.73	Baby will not be breastfed	3070	48.29
Hispanic	26	non-smoker	99.18	141.27	Baby will be breastfed	3210	50.12

## HW 1 Treeda

2

number	species	circumference_start	code	circumference_end	diameter_start	diameter_end	difference
1365	Beech	74.6	X	84.4	23.7580	26.8790	3.1210
5210	Maple	41.0	X	61.9	13.0573	19.7134	6.6561
1111	Pine	62.1	X	86.0	19.7771	27.3885	7.6115
2213	Pine	44.3	X	72.3	14.1083	23.0255	8.9172
3214	Pine	33.4	X	66.9	10.6369	21.3057	10.6688
1110	Oak	43.1	X	76.9	13.7261	24.4904	10.7643
1374	Beech	51.7	X	92.1	16.4650	29.3312	12.8662
1312	Pine	51.2	X	96.2	16.3057	30.6369	14.3312
6247	Oak	52.4	Y	36.6	16.6879	11.6561	-5.0318
1217	Maple	62.7	Y	63.4	19.9682	20.1911	0.2229
1301	Beech	74.0	Y	76.2	23.5669	24.2675	0.7006
1329	Oak	64.2	Y	66.7	20.4459	21.2420	0.7962
6116	Maple	51.6	Y	56.5	16.4331	17.9936	1.5605
6315	Pine	42.5	Y	47.6	13.5350	15.1592	1.6242
1383	Beech	92.8	Y	99.2	29.5541	31.5924	2.0382
1319	Maple	52.9	Z	63.2	16.8471	20.1274	3.2803
1138	Oak	41.3	Z	53.7	13.1529	17.1019	3.9490
1318	Maple	61.8	Z	77.3	19.6815	24.6178	4.9363
6356	Oak	53.5	Z	74.5	17.0382	23.7261	6.6879
1392	Beech	63.9	Z	86.1	20.3503	27.4204	7.0701

## The ANOVA Procedure

Class Level Information		
Class	Levels	Values
code	3	X Y Z

Number of Observations Read	20
Number of Observations Used	20

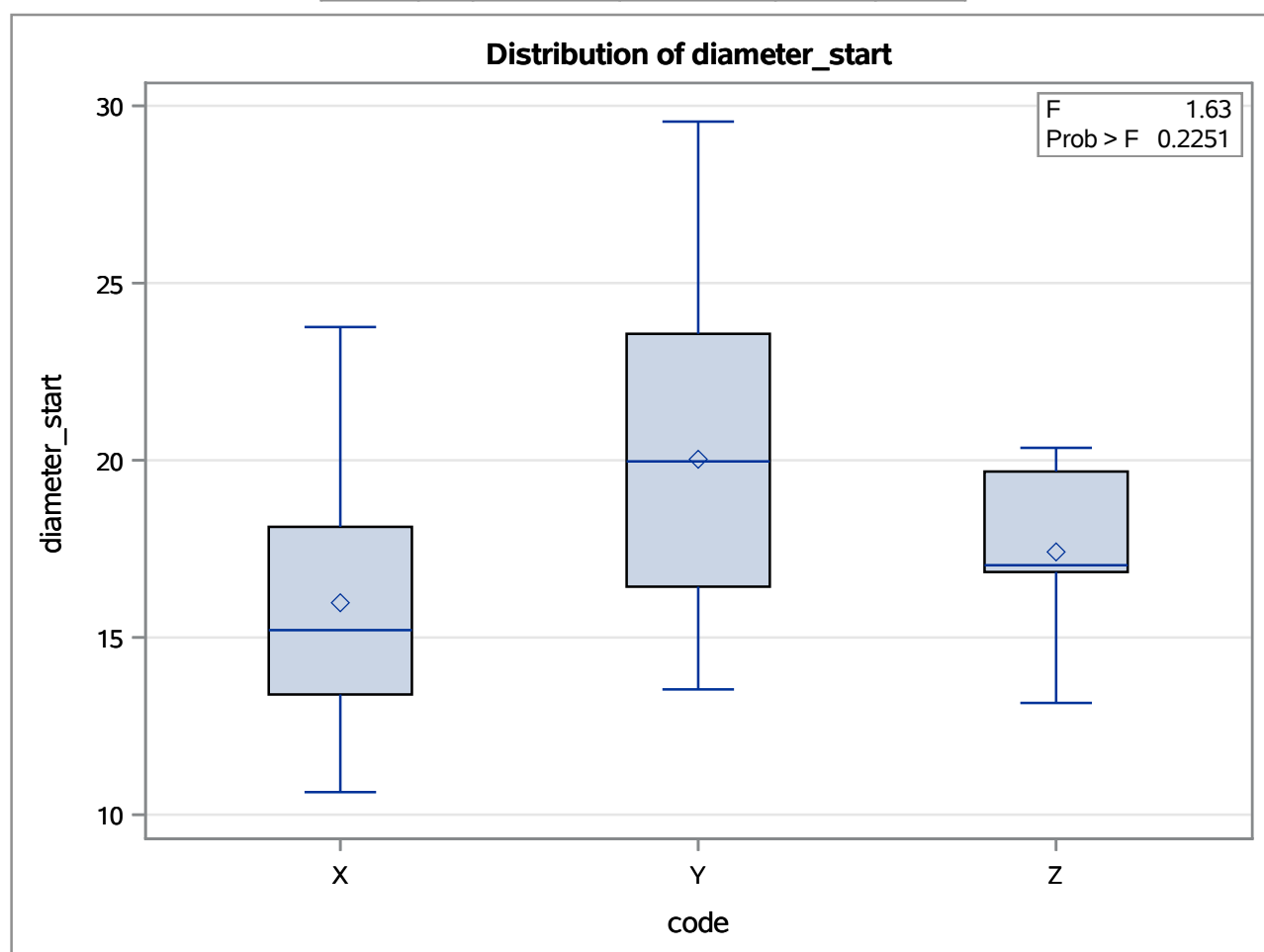
## The ANOVA Procedure

Dependent Variable: diameter\_start

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	61.9496155	30.9748077	1.63	0.2251
Error	17	323.0000782	19.0000046		
Corrected Total	19	384.9496937			

R-Square	Coeff Var	Root MSE	diameter_start Mean
0.160929	24.55057	4.358899	17.75478

Source	DF	Anova SS	Mean Square	F Value	Pr > F
code	2	61.94961546	30.97480773	1.63	0.2251



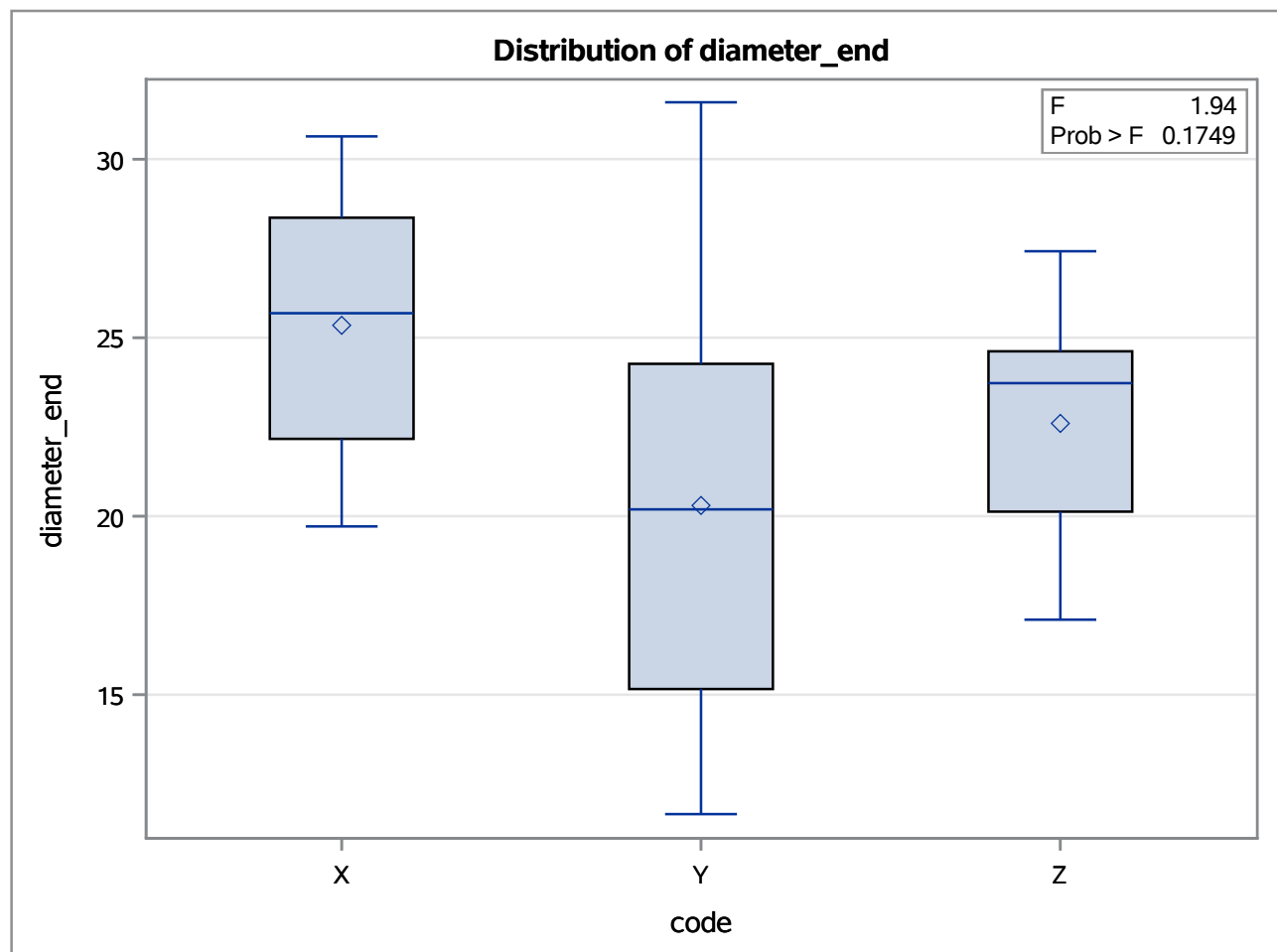
## The ANOVA Procedure

Dependent Variable: diameter\_end

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	95.6395399	47.8197699	1.94	0.1749
Error	17	420.1060786	24.7121223		
Corrected Total	19	515.7456185			

R-Square	Coeff Var	Root MSE	diameter_end Mean
0.185439	21.71433	4.971129	22.89331

Source	DF	Anova SS	Mean Square	F Value	Pr > F
code	2	95.63953985	47.81976993	1.94	0.1749



# Anova One Way

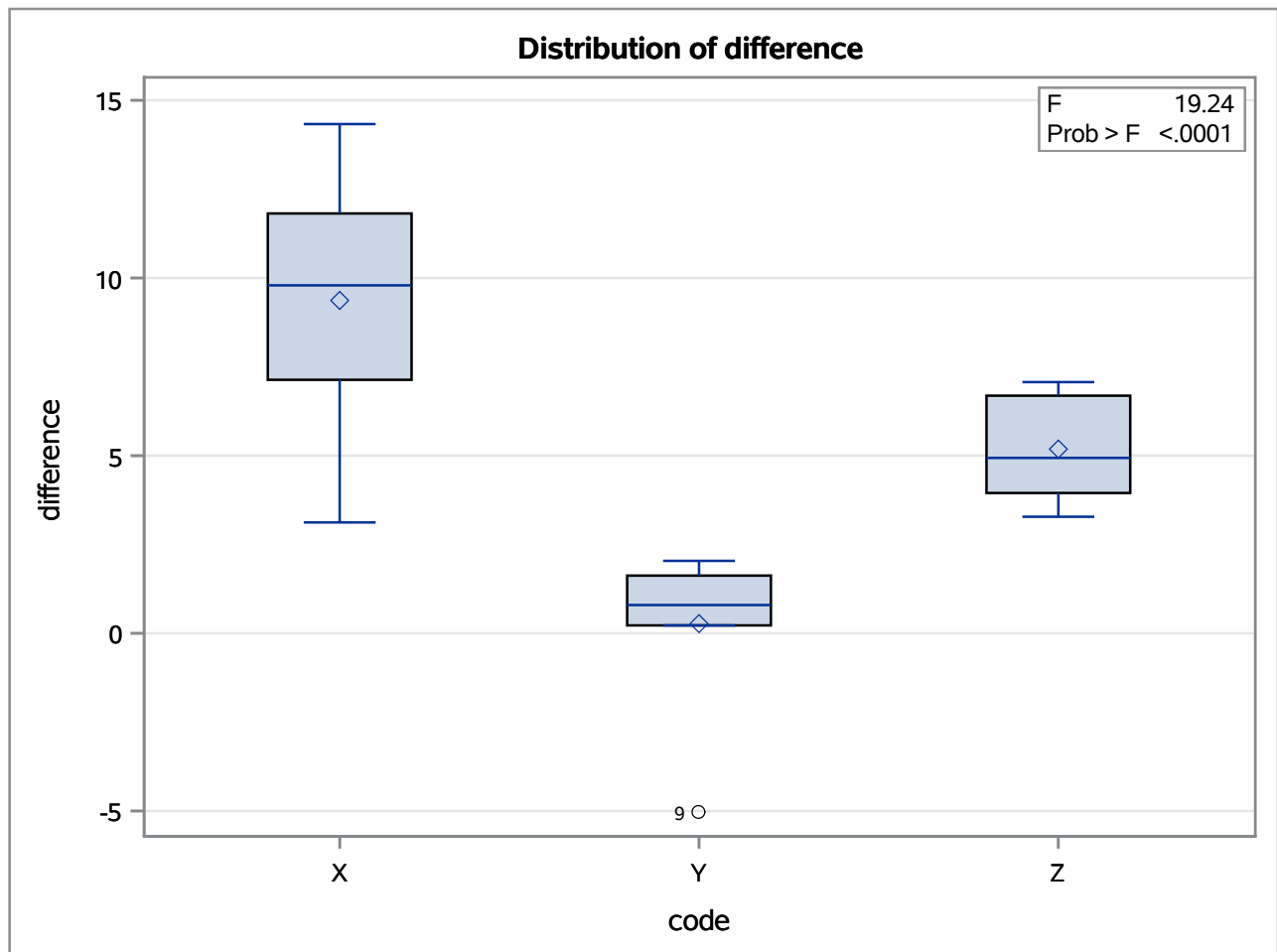
## The ANOVA Procedure

Dependent Variable: difference

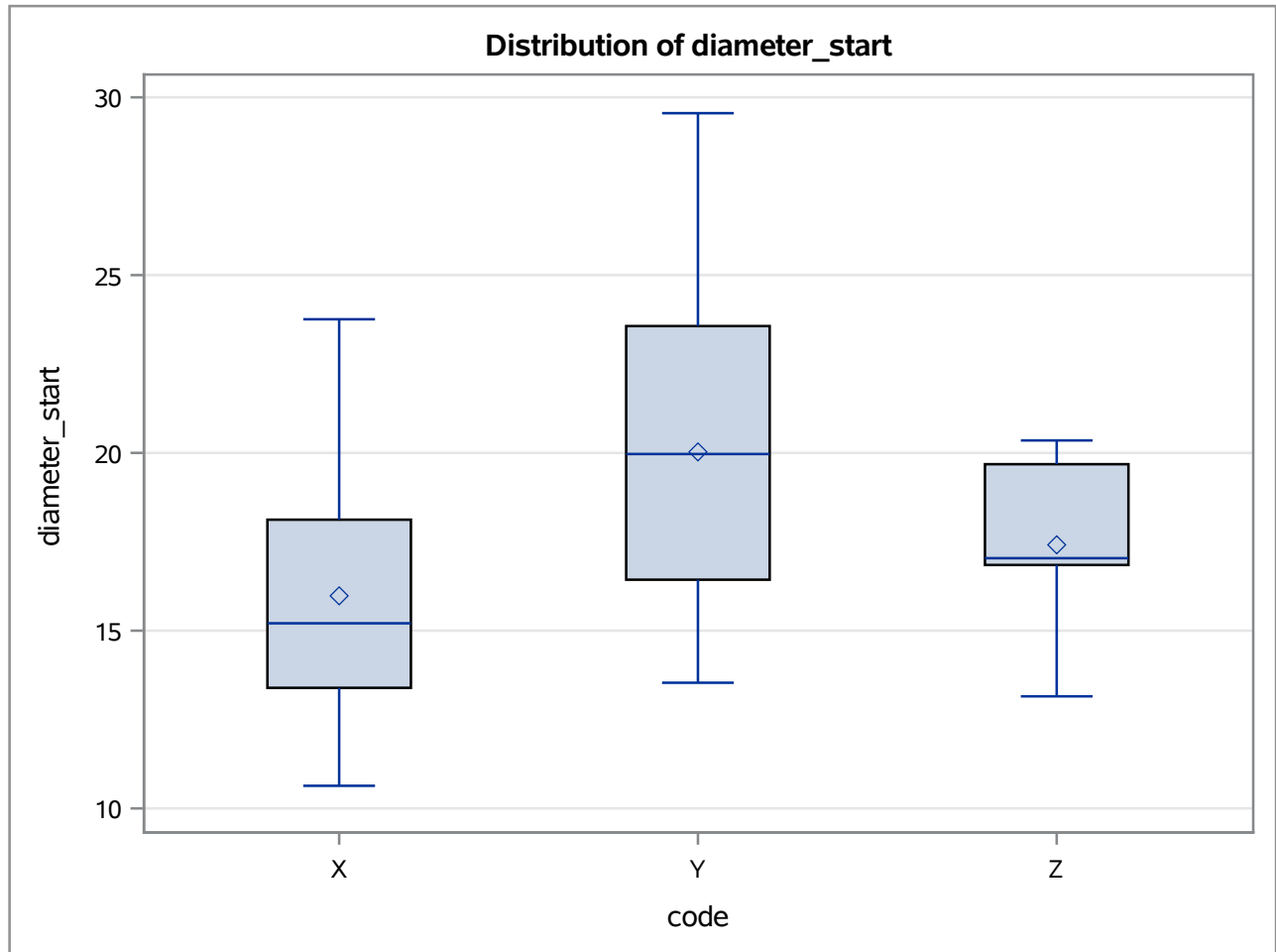
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	308.7682672	154.3841336	19.24	<.0001
Error	17	136.4105940	8.0241526		
Corrected Total	19	445.1788612			

R-Square	Coeff Var	Root MSE	difference Mean
0.693582	55.12648	2.832694	5.138535

Source	DF	Anova SS	Mean Square	F Value	Pr > F
code	2	308.7682672	154.3841336	19.24	<.0001



## The ANOVA Procedure



## The ANOVA Procedure

## Student-Newman-Keuls Test for diameter\_start

**Note:** This test controls the Type I experimentwise error rate under the complete null hypothesis but not under partial null hypotheses.

Alpha	0.05
Error Degrees of Freedom	17
Error Mean Square	19
Harmonic Mean of Cell Sizes	6.412214

**Note:** Cell sizes are not equal.

Number of Means	2	3
Critical Range	5.1358732	6.2450468

### diameter\_start SNK Grouping for Means of code (Alpha = 0.05)

Means covered by the same bar are not significantly different.

**code      Estimate**

Y              20.0273

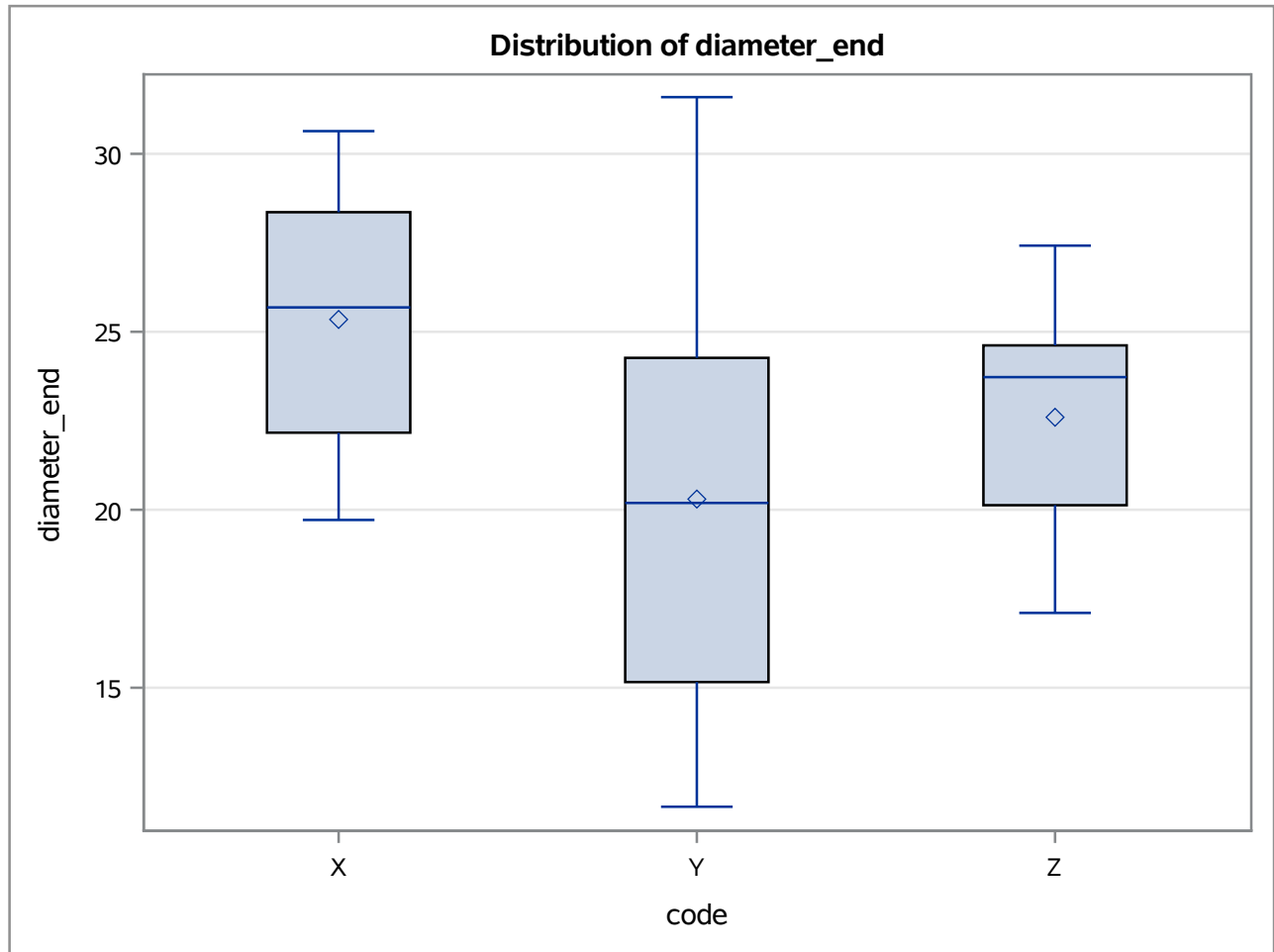
Z              17.4140

X              15.9793





## The ANOVA Procedure



## The ANOVA Procedure

## Student-Newman-Keuls Test for diameter\_end

**Note:** This test controls the Type I experimentwise error rate under the complete null hypothesis but not under partial null hypotheses.

Alpha	0.05
Error Degrees of Freedom	17
Error Mean Square	24.71212
Harmonic Mean of Cell Sizes	6.412214

**Note:** Cell sizes are not equal.

Number of Means	2	3
Critical Range	5.8572325	7.1221951

### diameter\_end SNK Grouping for Means of code (Alpha = 0.05)

Means covered by the same bar are not significantly different.

**code      Estimate**

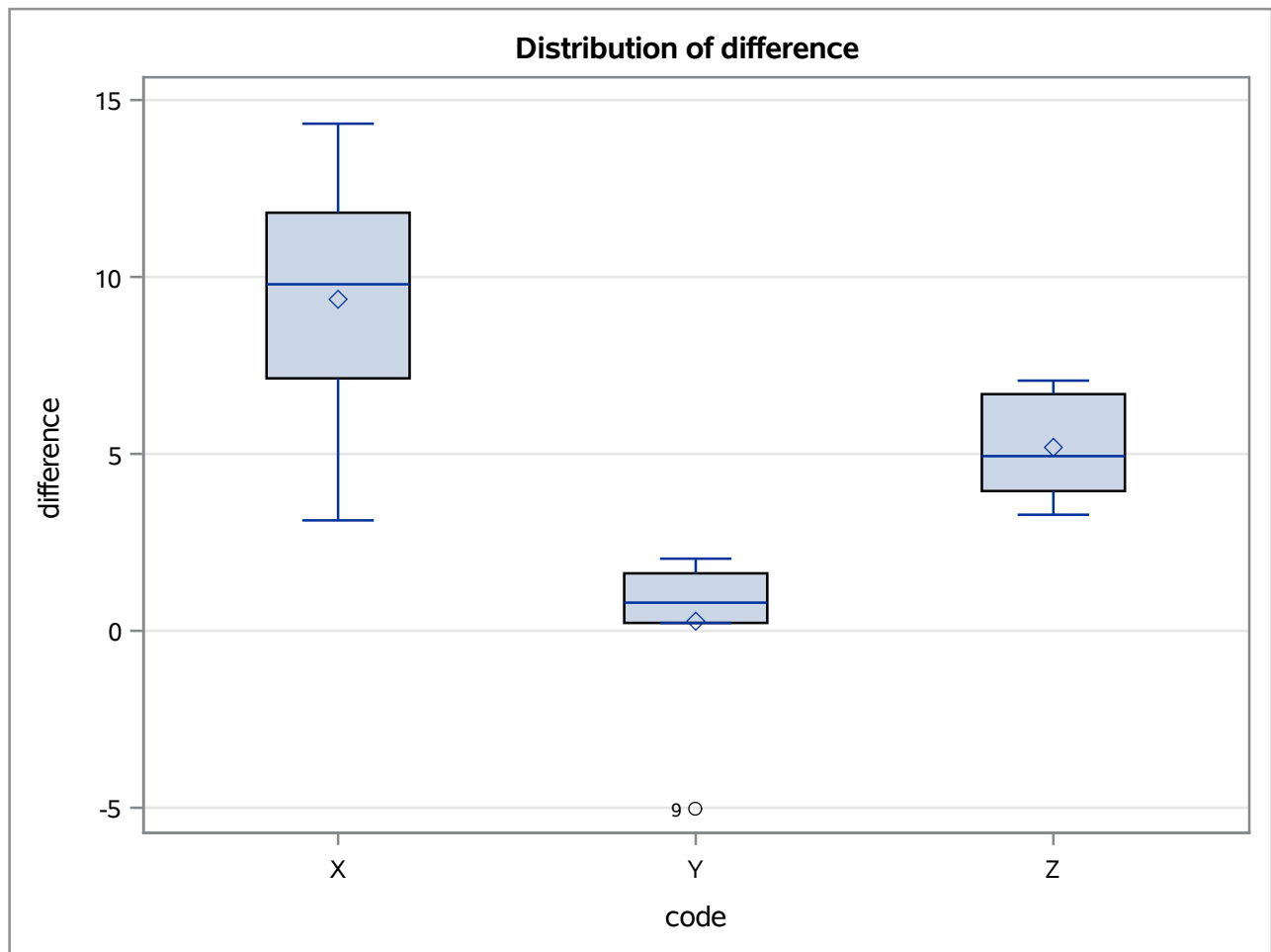
X            25.3463

Z            22.5987

Y            20.3003



## The ANOVA Procedure



## The ANOVA Procedure

## Student-Newman-Keuls Test for difference

**Note:** This test controls the Type I experimentwise error rate under the complete null hypothesis but not under partial null hypotheses.

Alpha	0.05
Error Degrees of Freedom	17
Error Mean Square	8.024153
Harmonic Mean of Cell Sizes	6.412214

**Note:** Cell sizes are not equal.

Number of Means	2	3
Critical Range	3.3376211	4.0584335

### difference SNK Grouping for Means of code (Alpha = 0.05)

Means covered by the same bar are not significantly different.

**code    Estimate**

