Мюжгян Адем Томар, 4 курс, спец. Приложна математика, ф. Номер: 1101391001

ЗАД. 1 1-Да се запишат данните от stpsamp.sale в work.mysales. 2- Да се отпечтат данните от work.mysales. 3- Да се сортират данните и 4- да се отпечатат сортирните данни.5- Да се изведе информация за таблиците (брой колони, брой изследвания, типа на колините). 6- Да се групират данните по региони с променлива количество. 7- Да се извади средната цена на продадените продукти по продукти А100, А200, А300.

1. Записваме данните в work.mysales.

data work.mysales;

set stpsamp.stpsale;

run;

Данните вече са записани в work.mysales.

1. Отпечатваме данните от work.mysales и даваме име на таблицата Results of my sales.

title "Results of my sales"; (Даваме Името на таблицата)

proc print data=work.mysales; (отпечатваме данните от work.mysale)

run;

**Results of my sales**

| **Obs** | **region** | **citysize** | **pop** | **product** | **saletype** | **quantity** | **amount** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | NC | S | 25000 | A100 | R | 150 | 3750 |
| **2** | NE | S | 37000 | A100 | R | 200 | 5000 |
| **3** | SO | S | 48000 | A100 | R | 410 | 10250 |
| **4** | WE | S | 32000 | A100 | R | 180 | 4500 |
| **5** | NC | M | 125000 | A100 | R | 350 | 8750 |
| **6** | NE | M | 237000 | A100 | R | 600 | 15000 |
| **7** | SO | M | 348000 | A100 | R | 710 | 17750 |
| **8** | WE | M | 432000 | A100 | R | 780 | 19500 |
| **9** | NE | L | 837000 | A100 | R | 800 | 20000 |
| **10** | SO | L | 748000 | A100 | R | 760 | 19000 |
| **11** | WE | L | 932000 | A100 | R | 880 | 22000 |
| **12** | NC | S | 25000 | A100 | W | 150 | 3000 |
| **13** | NE | S | 37000 | A100 | W | 200 | 4000 |
| **14** | WE | S | 32000 | A100 | W | 180 | 3600 |
| **15** | NC | M | 125000 | A100 | W | 350 | 7000 |
| **16** | NE | M | 237000 | A100 | W | 600 | 12000 |
| **17** | SO | M | 348000 | A100 | W | 710 | 14200 |
| **18** | WE | M | 432000 | A100 | W | 780 | 15600 |
| **19** | NC | L | 625000 | A100 | W | 750 | 15000 |
| **20** | NE | L | 837000 | A100 | W | 800 | 16000 |
| **21** | SO | L | 748000 | A100 | W | 760 | 15200 |
| **22** | WE | L | 932000 | A100 | W | 880 | 17600 |
| **23** | NC | S | 25000 | A200 | R | 165 | 4125 |
| **24** | NE | S | 37000 | A200 | R | 215 | 5375 |
| **25** | SO | S | 48000 | A200 | R | 425 | 10425 |
| **26** | WE | S | 32000 | A200 | R | 195 | 4875 |
| **27** | NC | M | 125000 | A200 | R | 365 | 9125 |
| **28** | NE | M | 237000 | A200 | R | 615 | 15375 |
| **29** | SO | M | 348000 | A200 | R | 725 | 19125 |
| **30** | WE | M | 432000 | A200 | R | 795 | 19875 |
| **31** | NE | L | 837000 | A200 | R | 815 | 20375 |
| **32** | SO | L | 748000 | A200 | R | 775 | 19375 |
| **33** | WE | L | 932000 | A200 | R | 895 | 22375 |
| **34** | NC | S | 25000 | A200 | W | 165 | 3300 |
| **35** | NE | S | 37000 | A200 | W | 215 | 4300 |
| **36** | WE | S | 32000 | A200 | W | 195 | 3900 |
| **37** | NC | M | 125000 | A200 | W | 365 | 7300 |
| **38** | NE | M | 237000 | A200 | W | 615 | 12300 |
| **39** | SO | M | 348000 | A200 | W | 725 | 14500 |
| **40** | WE | M | 432000 | A200 | W | 795 | 15900 |
| **41** | NC | L | 625000 | A200 | W | 765 | 15300 |
| **42** | NE | L | 837000 | A200 | W | 815 | 16300 |
| **43** | SO | L | 748000 | A200 | W | 775 | 15500 |
| **44** | WE | L | 932000 | A200 | W | 895 | 17900 |
| **45** | NC | S | 25000 | A300 | R | 157 | 3925 |
| **46** | NE | S | 37000 | A300 | R | 208 | 5200 |
| **47** | SO | S | 48000 | A300 | R | 419 | 10475 |
| **48** | WE | S | 32000 | A300 | R | 186 | 4650 |
| **49** | NC | M | 125000 | A300 | R | 351 | 8725 |
| **50** | NE | M | 237000 | A300 | R | 610 | 15250 |
| **51** | SO | M | 348000 | A300 | R | 714 | 17850 |
| **52** | WE | M | 432000 | A300 | R | 785 | 19625 |
| **53** | NE | L | 837000 | A300 | R | 806 | 20150 |
| **54** | SO | L | 748000 | A300 | R | 768 | 19200 |
| **55** | WE | L | 932000 | A300 | R | 880 | 22000 |
| **56** | NC | S | 25000 | A300 | W | 157 | 3140 |
| **57** | NE | S | 37000 | A300 | W | 208 | 4160 |
| **58** | WE | S | 32000 | A300 | W | 186 | 3720 |
| **59** | NC | M | 125000 | A300 | W | 351 | 7020 |
| **60** | NE | M | 237000 | A300 | W | 610 | 12200 |
| **61** | SO | M | 348000 | A300 | W | 714 | 14280 |
| **62** | WE | M | 432000 | A300 | W | 785 | 15700 |
| **63** | NC | L | 625000 | A300 | W | 757 | 15140 |
| **64** | NE | L | 837000 | A300 | W | 806 | 16120 |
| **65** | SO | L | 748000 | A300 | W | 768 | 15360 |
| **66** | WE | L | 932000 | A300 | W | 880 | 17600 |

1. Сортираме данните по продукт и количество.

proc sort data=work.mysales;

by product quantity;

run;

1. Отпечатваме сортираните данни и даваме име на таблицата Sorted Results of my sales.

proc print data=work.mysales;

run;

**Sorted results of my sales**

| **Obs** | **region** | **citysize** | **pop** | **product** | **saletype** | **quantity** | **amount** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | NC | S | 25000 | A100 | R | 150 | 3750 |
| **2** | NC | S | 25000 | A100 | W | 150 | 3000 |
| **3** | WE | S | 32000 | A100 | R | 180 | 4500 |
| **4** | WE | S | 32000 | A100 | W | 180 | 3600 |
| **5** | NE | S | 37000 | A100 | R | 200 | 5000 |
| **6** | NE | S | 37000 | A100 | W | 200 | 4000 |
| **7** | NC | M | 125000 | A100 | R | 350 | 8750 |
| **8** | NC | M | 125000 | A100 | W | 350 | 7000 |
| **9** | SO | S | 48000 | A100 | R | 410 | 10250 |
| **10** | NE | M | 237000 | A100 | R | 600 | 15000 |
| **11** | NE | M | 237000 | A100 | W | 600 | 12000 |
| **12** | SO | M | 348000 | A100 | R | 710 | 17750 |
| **13** | SO | M | 348000 | A100 | W | 710 | 14200 |
| **14** | NC | L | 625000 | A100 | W | 750 | 15000 |
| **15** | SO | L | 748000 | A100 | R | 760 | 19000 |
| **16** | SO | L | 748000 | A100 | W | 760 | 15200 |
| **17** | WE | M | 432000 | A100 | R | 780 | 19500 |
| **18** | WE | M | 432000 | A100 | W | 780 | 15600 |
| **19** | NE | L | 837000 | A100 | R | 800 | 20000 |
| **20** | NE | L | 837000 | A100 | W | 800 | 16000 |
| **21** | WE | L | 932000 | A100 | R | 880 | 22000 |
| **22** | WE | L | 932000 | A100 | W | 880 | 17600 |
| **23** | NC | S | 25000 | A200 | R | 165 | 4125 |
| **24** | NC | S | 25000 | A200 | W | 165 | 3300 |
| **25** | WE | S | 32000 | A200 | R | 195 | 4875 |
| **26** | WE | S | 32000 | A200 | W | 195 | 3900 |
| **27** | NE | S | 37000 | A200 | R | 215 | 5375 |
| **28** | NE | S | 37000 | A200 | W | 215 | 4300 |
| **29** | NC | M | 125000 | A200 | R | 365 | 9125 |
| **30** | NC | M | 125000 | A200 | W | 365 | 7300 |
| **31** | SO | S | 48000 | A200 | R | 425 | 10425 |
| **32** | NE | M | 237000 | A200 | R | 615 | 15375 |
| **33** | NE | M | 237000 | A200 | W | 615 | 12300 |
| **34** | SO | M | 348000 | A200 | R | 725 | 19125 |
| **35** | SO | M | 348000 | A200 | W | 725 | 14500 |
| **36** | NC | L | 625000 | A200 | W | 765 | 15300 |
| **37** | SO | L | 748000 | A200 | R | 775 | 19375 |
| **38** | SO | L | 748000 | A200 | W | 775 | 15500 |
| **39** | WE | M | 432000 | A200 | R | 795 | 19875 |
| **40** | WE | M | 432000 | A200 | W | 795 | 15900 |
| **41** | NE | L | 837000 | A200 | R | 815 | 20375 |
| **42** | NE | L | 837000 | A200 | W | 815 | 16300 |
| **43** | WE | L | 932000 | A200 | R | 895 | 22375 |
| **44** | WE | L | 932000 | A200 | W | 895 | 17900 |
| **45** | NC | S | 25000 | A300 | R | 157 | 3925 |
| **46** | NC | S | 25000 | A300 | W | 157 | 3140 |
| **47** | WE | S | 32000 | A300 | R | 186 | 4650 |
| **48** | WE | S | 32000 | A300 | W | 186 | 3720 |
| **49** | NE | S | 37000 | A300 | R | 208 | 5200 |
| **50** | NE | S | 37000 | A300 | W | 208 | 4160 |
| **51** | NC | M | 125000 | A300 | R | 351 | 8725 |
| **52** | NC | M | 125000 | A300 | W | 351 | 7020 |
| **53** | SO | S | 48000 | A300 | R | 419 | 10475 |
| **54** | NE | M | 237000 | A300 | R | 610 | 15250 |
| **55** | NE | M | 237000 | A300 | W | 610 | 12200 |
| **56** | SO | M | 348000 | A300 | R | 714 | 17850 |
| **57** | SO | M | 348000 | A300 | W | 714 | 14280 |
| **58** | NC | L | 625000 | A300 | W | 757 | 15140 |
| **59** | SO | L | 748000 | A300 | R | 768 | 19200 |
| **60** | SO | L | 748000 | A300 | W | 768 | 15360 |
| **61** | WE | M | 432000 | A300 | R | 785 | 19625 |
| **62** | WE | M | 432000 | A300 | W | 785 | 15700 |
| **63** | NE | L | 837000 | A300 | R | 806 | 20150 |
| **64** | NE | L | 837000 | A300 | W | 806 | 16120 |
| **65** | WE | L | 932000 | A300 | R | 880 | 22000 |
| **66** | WE | L | 932000 | A300 | W | 880 | 17600 |

1. proc contents data=work.mysales;

run;

резултатът, който излиза показва следното:

**The CONTENTS Procedure**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Set Name** | WORK.MYSALES | **Observations** | 66 |
| **Member Type** | DATA | **Variables** | 7 |
| **Engine** | V9 | **Indexes** | 0 |
| **Created** | 08.03.2015 13:37:46 | **Observation Length** | 56 |
| **Last Modified** | 08.03.2015 13:37:46 | **Deleted Observations** | 0 |
| **Protection** |  | **Compressed** | NO |
| **Data Set Type** |  | **Sorted** | YES |
| **Label** |  |  |  |
| **Data Representation** | SOLARIS\_X86\_64, LINUX\_X86\_64, ALPHA\_TRU64, LINUX\_IA64 |  |  |
| **Encoding** | utf-8 Unicode (UTF-8) |  |  |

Виждат се броя на наблюденията, броят на промелнивите (колонките), кога е създадена таблицата.

Engine/Host Dependent Information

Data Set Page Size 131072

Number of Data Set Pages 1

First Data Page 1

Max Obs per Page 2334

Obs in First Data Page 66

Number of Data Set Repairs 0

Filename /saswork/SAS\_work22CF00006381\_odaws02-ie.oda.sas.com/SAS\_workA7FA00006381\_odaws02-ie.oda.sas.com/mysales.sas7bdat

Release Created 9.0401M2

Host Created Linux

Inode Number 26214421

Access Permission rw-rw-r--

Owner Name mija92

File Size (bytes) 262144

Тук се вижда рзмер на файла, от кого е използван името му.

| **Alphabetic List of Variables and Attributes** | | | |
| --- | --- | --- | --- |
| **#** | **Variable** | **Type** | **Len** |
| **7** | amount | Num | 8 |
| **2** | citysize | Char | 8 |
| **3** | pop | Num | 8 |
| **4** | product | Char | 8 |
| **6** | quantity | Num | 8 |
| **1** | region | Char | 8 |
| **5** | saletype | Char | 8 |

Изкарва броя на колонките, имената им, типа им и дължината на данните, които могат да се записват в тях, като ги подрежда по азбучен ред.

Sort Information

Sortedby product quantity

Validated YES

Character Set ASCII

Тъй като сортирахме данните излезна ни информация, че данните са сортирани по продукт и количество.

1. proc tabulate data=work.mysales;

class region; /\*Групиране по регион\*/

var quantity; /\*Променлива- количество\*/

table region\*quantity;

run;

Резултът е:

| **region** | | | |
| --- | --- | --- | --- |
| **NC** | **NE** | **SO** | **WE** |
| **quantity** | **quantity** | **quantity** | **quantity** |
| **Sum** | **Sum** | **Sum** | **Sum** |
| 5348.00 | 9738.00 | 10158.00 | 11152.00 |

Вижда се колко е сумата от количеството по региони.

1. proc tabulate data=work.mysales;

class product; /\*въвеждаме класът продукт, по който ще се групира\*/

var amount; /\*въвеждаме променливата, на която ще търсим средната стойност\*/

table product\*amount, mean; /\* c mean ще намерим средната стойност на цената на продадените продукти\*/

run;

Резултатът е:

|  | | **Mean** |
| --- | --- | --- |
| **product** |  | 12213.64 |
| **A100** | **amount** |
| **A200** | **amount** | 12587.50 |
| **A300** | **amount** | 12340.45 |

ЗАД. 2 1- Да се запишат данните от SASHELP.SHOES в work.shoes и да се принтират данните. 2- Да се изкара средното на продадените стоки и наличноста, с която разполагат. 3- Да се извади медианата, средното, минималната стойност, максималната стойност на продадените стоки и наличността по продукти. 4- Да се изведе честотна таблица на данните за продуктите. 5- Оформете текст на отпечатване на заглавието стил- ариел, дебелина 1.0, цвят зелен. 6- Начертайте вертикална хистограма на таблица shoes за количествената променлива продажби. 7- Начертайте хоризонтапна хистограма в червено за качествената променлива продукт. 8- Начертайте кръгова диаграма за продукт в цвят син. 9- Начертайте кръгова 3D диаграма за продукт без дa задавате цвят. 10- Начертайте графика за продукт и продажби. 11- Свържете данните от предната графика с линия. 12- Променете отбелязването на точките по графикатат със звездичка.

1. data shoes;

set sashelp.shoes;

run;

proc print data=work.shoes;

run;

резултатът е:

| **Obs** | **Region** | **Product** | **Subsidiary** | **Stores** | **Sales** | **Inventory** | **Returns** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | Africa | Boot | Addis Ababa | 12 | $29,761 | $191,821 | $769 |
| **2** | Africa | Men's Casual | Addis Ababa | 4 | $67,242 | $118,036 | $2,284 |
| **3** | Africa | Men's Dress | Addis Ababa | 7 | $76,793 | $136,273 | $2,433 |
| **4** | Africa | Sandal | Addis Ababa | 10 | $62,819 | $204,284 | $1,861 |
| **5** | Africa | Slipper | Addis Ababa | 14 | $68,641 | $279,795 | $1,771 |
| **6** | Africa | Sport Shoe | Addis Ababa | 4 | $1,690 | $16,634 | $79 |
| **7** | Africa | Women's Casual | Addis Ababa | 2 | $51,541 | $98,641 | $940 |
| **8** | Africa | Women's Dress | Addis Ababa | 12 | $108,942 | $311,017 | $3,233 |
| **9** | Africa | Boot | Algiers | 21 | $21,297 | $73,737 | $710 |
| **10** | Africa | Men's Casual | Algiers | 4 | $63,206 | $100,982 | $2,221 |
| **11** | Africa | Men's Dress | Algiers | 13 | $123,743 | $428,575 | $3,621 |
| **12** | Africa | Sandal | Algiers | 25 | $29,198 | $84,447 | $1,530 |
| **13** | Africa | Slipper | Algiers | 17 | $64,891 | $248,198 | $1,823 |
| **14** | Africa | Sport Shoe | Algiers | 9 | $2,617 | $9,372 | $168 |
| **15** | Africa | Women's Dress | Algiers | 12 | $90,648 | $266,805 | $2,690 |
| **16** | Africa | Boot | Cairo | 20 | $4,846 | $18,965 | $229 |
| **17** | Africa | Men's Casual | Cairo | 25 | $360,209 | $1,063,251 | $9,424 |
| **18** | Africa | Men's Dress | Cairo | 5 | $4,051 | $45,962 | $97 |
| **19** | Africa | Sandal | Cairo | 9 | $10,532 | $50,430 | $598 |
| **20** | Africa | Slipper | Cairo | 9 | $13,732 | $54,117 | $1,216 |
| **21** | Africa | Sport Shoe | Cairo | 3 | $2,259 | $20,815 | $44 |
| **22** | Africa | Women's Casual | Cairo | 14 | $328,474 | $940,851 | $10,124 |
| **23** | Africa | Women's Dress | Cairo | 3 | $14,095 | $51,145 | $745 |
| **24** | Africa | Boot | Johannesburg | 14 | $8,365 | $33,011 | $483 |
| **25** | Africa | Sandal | Johannesburg | 13 | $17,337 | $63,003 | $809 |
| **26** | Africa | Slipper | Johannesburg | 12 | $39,452 | $130,025 | $1,565 |
| **27** | Africa | Sport Shoe | Johannesburg | 8 | $5,172 | $29,368 | $139 |
| **28** | Africa | Women's Dress | Johannesburg | 4 | $42,682 | $120,127 | $966 |
| **29** | Africa | Boot | Khartoum | 24 | $19,282 | $105,370 | $700 |
| **30** | Africa | Men's Casual | Khartoum | 1 | $9,244 | $16,230 | $478 |
| **31** | Africa | Men's Dress | Khartoum | 3 | $18,053 | $51,132 | $1,177 |
| **32** | Africa | Sandal | Khartoum | 18 | $26,427 | $81,825 | $1,281 |
| **33** | Africa | Slipper | Khartoum | 11 | $43,452 | $143,015 | $1,573 |
| **34** | Africa | Sport Shoe | Khartoum | 7 | $2,521 | $27,041 | $84 |
| **35** | Africa | Women's Casual | Khartoum | 1 | $19,582 | $30,727 | $384 |
| **36** | Africa | Women's Dress | Khartoum | 6 | $48,031 | $132,679 | $1,374 |
| **37** | Africa | Boot | Kinshasa | 16 | $13,921 | $70,736 | $553 |
| **38** | Africa | Men's Dress | Kinshasa | 5 | $57,691 | $95,663 | $1,699 |
| **39** | Africa | Sandal | Kinshasa | 10 | $16,662 | $104,438 | $611 |
| **40** | Africa | Slipper | Kinshasa | 11 | $52,807 | $183,937 | $1,440 |
| **41** | Africa | Sport Shoe | Kinshasa | 10 | $4,888 | $27,998 | $162 |
| **42** | Africa | Women's Casual | Kinshasa | 1 | $17,919 | $21,363 | $400 |
| **43** | Africa | Women's Dress | Kinshasa | 3 | $32,928 | $87,149 | $717 |
| **44** | Africa | Boot | Luanda | 8 | $6,081 | $51,572 | $325 |
| **45** | Africa | Men's Casual | Luanda | 3 | $62,893 | $149,864 | $1,701 |
| **46** | Africa | Men's Dress | Luanda | 2 | $29,582 | $67,247 | $705 |
| **47** | Africa | Sandal | Luanda | 9 | $11,145 | $19,900 | $657 |
| **48** | Africa | Slipper | Luanda | 5 | $19,146 | $97,060 | $701 |
| **49** | Africa | Sport Shoe | Luanda | 2 | $801 | $3,247 | $29 |
| **50** | Africa | Women's Dress | Luanda | 1 | $8,467 | $47,387 | $210 |
| **51** | Africa | Boot | Nairobi | 25 | $16,282 | $66,017 | $844 |
| **52** | Africa | Men's Dress | Nairobi | 1 | $8,587 | $20,877 | $363 |
| **53** | Africa | Sandal | Nairobi | 19 | $16,289 | $47,406 | $1,175 |
| **54** | Africa | Slipper | Nairobi | 12 | $34,955 | $87,438 | $1,320 |
| **55** | Africa | Sport Shoe | Nairobi | 10 | $2,202 | $11,328 | $174 |
| **56** | Africa | Women's Dress | Nairobi | 3 | $28,515 | $62,740 | $678 |
| **57** | Asia | Boot | Bangkok | 1 | $1,996 | $9,576 | $80 |
| **58** | Asia | Men's Dress | Bangkok | 1 | $3,033 | $20,831 | $52 |
| **59** | Asia | Sandal | Bangkok | 1 | $3,230 | $15,087 | $120 |
| **60** | Asia | Slipper | Bangkok | 1 | $3,019 | $16,075 | $127 |
| **61** | Asia | Women's Casual | Bangkok | 1 | $5,389 | $16,251 | $185 |
| **62** | Asia | Boot | Seoul | 17 | $60,712 | $160,589 | $1,296 |
| **63** | Asia | Men's Casual | Seoul | 1 | $11,754 | $2,176 | $833 |
| **64** | Asia | Men's Dress | Seoul | 7 | $116,333 | $251,803 | $2,443 |
| **65** | Asia | Sandal | Seoul | 3 | $4,978 | $21,483 | $105 |
| **66** | Asia | Slipper | Seoul | 21 | $149,013 | $469,007 | $2,941 |
| **67** | Asia | Sport Shoe | Seoul | 1 | $937 | $455 | $10 |
| **68** | Asia | Women's Casual | Seoul | 2 | $20,448 | $36,576 | $790 |
| **69** | Asia | Women's Dress | Seoul | 7 | $78,234 | $140,628 | $1,891 |
| **70** | Asia | Sport Shoe | Tokyo | 1 | $1,155 | $15,602 | $22 |
| **71** | Canada | Boot | Calgary | 8 | $17,720 | $63,280 | $472 |
| **72** | Canada | Men's Dress | Calgary | 1 | $12,775 | $39,663 | $353 |
| **73** | Canada | Sandal | Calgary | 7 | $2,886 | $15,838 | $147 |
| **74** | Canada | Slipper | Calgary | 2 | $5,676 | $48,061 | $253 |
| **75** | Canada | Sport Shoe | Calgary | 9 | $9,745 | $38,059 | $264 |
| **76** | Canada | Women's Dress | Calgary | 2 | $12,601 | $54,677 | $488 |
| **77** | Canada | Boot | Montreal | 25 | $40,213 | $240,132 | $1,472 |
| **78** | Canada | Men's Casual | Montreal | 3 | $53,929 | $187,155 | $2,241 |
| **79** | Canada | Men's Dress | Montreal | 11 | $112,009 | $355,170 | $3,713 |
| **80** | Canada | Sandal | Montreal | 7 | $3,002 | $18,382 | $122 |
| **81** | Canada | Slipper | Montreal | 24 | $135,305 | $500,053 | $3,395 |
| **82** | Canada | Sport Shoe | Montreal | 31 | $29,435 | $178,128 | $1,129 |
| **83** | Canada | Women's Casual | Montreal | 2 | $24,497 | $34,808 | $832 |
| **84** | Canada | Women's Dress | Montreal | 12 | $132,638 | $483,637 | $2,880 |
| **85** | Canada | Boot | Ottawa | 5 | $7,892 | $28,162 | $377 |
| **86** | Canada | Men's Casual | Ottawa | 1 | $19,210 | $29,249 | $578 |
| **87** | Canada | Sandal | Ottawa | 2 | $2,600 | $1,727 | $27 |
| **88** | Canada | Slipper | Ottawa | 10 | $30,905 | $89,576 | $1,397 |
| **89** | Canada | Sport Shoe | Ottawa | 6 | $2,598 | $15,007 | $204 |
| **90** | Canada | Women's Casual | Ottawa | 1 | $18,712 | $46,064 | $427 |
| **91** | Canada | Women's Dress | Ottawa | 4 | $33,824 | $84,378 | $939 |
| **92** | Canada | Boot | Toronto | 16 | $33,291 | $149,118 | $994 |
| **93** | Canada | Men's Casual | Toronto | 2 | $15,403 | $20,811 | $1,401 |
| **94** | Canada | Men's Dress | Toronto | 2 | $37,519 | $84,690 | $806 |
| **95** | Canada | Sandal | Toronto | 2 | $1,190 | $6,763 | $38 |
| **96** | Canada | Slipper | Toronto | 14 | $80,352 | $302,074 | $1,908 |
| **97** | Canada | Sport Shoe | Toronto | 29 | $34,585 | $164,113 | $913 |
| **98** | Canada | Women's Casual | Toronto | 4 | $63,492 | $149,239 | $1,700 |
| **99** | Canada | Women's Dress | Toronto | 7 | $53,940 | $165,711 | $1,967 |
| **100** | Canada | Boot | Vancouver | 31 | $286,497 | $882,080 | $9,160 |
| **101** | Canada | Men's Casual | Vancouver | 25 | $353,361 | $671,837 | $20,470 |
| **102** | Canada | Men's Dress | Vancouver | 28 | $757,798 | $1,847,559 | $16,833 |
| **103** | Canada | Sandal | Vancouver | 15 | $5,120 | $56,325 | $294 |
| **104** | Canada | Slipper | Vancouver | 27 | $700,513 | $2,520,085 | $21,247 |
| **105** | Canada | Sport Shoe | Vancouver | 26 | $64,026 | $370,388 | $2,297 |
| **106** | Canada | Women's Casual | Vancouver | 20 | $304,106 | $665,323 | $8,278 |
| **107** | Canada | Women's Dress | Vancouver | 21 | $756,347 | $2,503,387 | $19,378 |
| **108** | Central America/Caribbean | Boot | Kingston | 33 | $102,372 | $393,376 | $4,454 |
| **109** | Central America/Caribbean | Men's Casual | Kingston | 28 | $576,112 | $1,159,556 | $20,005 |
| **110** | Central America/Caribbean | Men's Dress | Kingston | 23 | $270,863 | $618,703 | $7,447 |
| **111** | Central America/Caribbean | Sandal | Kingston | 15 | $200,156 | $624,163 | $8,365 |
| **112** | Central America/Caribbean | Slipper | Kingston | 37 | $476,638 | $1,555,357 | $15,713 |
| **113** | Central America/Caribbean | Sport Shoe | Kingston | 23 | $18,177 | $86,162 | $944 |
| **114** | Central America/Caribbean | Women's Casual | Kingston | 18 | $215,069 | $275,321 | $7,361 |
| **115** | Central America/Caribbean | Women's Dress | Kingston | 41 | $375,817 | $1,147,300 | $11,656 |
| **116** | Central America/Caribbean | Boot | Managua | 17 | $34,660 | $162,033 | $1,775 |
| **117** | Central America/Caribbean | Men's Casual | Managua | 3 | $69,276 | $79,666 | $1,861 |
| **118** | Central America/Caribbean | Men's Dress | Managua | 4 | $35,393 | $72,044 | $1,456 |
| **119** | Central America/Caribbean | Sandal | Managua | 37 | $65,478 | $261,456 | $2,524 |
| **120** | Central America/Caribbean | Slipper | Managua | 25 | $92,539 | $289,520 | $2,800 |
| **121** | Central America/Caribbean | Sport Shoe | Managua | 14 | $5,655 | $17,155 | $269 |
| **122** | Central America/Caribbean | Women's Casual | Managua | 3 | $48,567 | $118,849 | $1,318 |
| **123** | Central America/Caribbean | Women's Dress | Managua | 10 | $63,238 | $163,951 | $2,308 |
| **124** | Central America/Caribbean | Boot | Mexico City | 21 | $20,819 | $79,994 | $814 |
| **125** | Central America/Caribbean | Men's Casual | Mexico City | 3 | $66,216 | $70,123 | $2,198 |
| **126** | Central America/Caribbean | Men's Dress | Mexico City | 3 | $30,157 | $78,950 | $1,012 |
| **127** | Central America/Caribbean | Sandal | Mexico City | 33 | $52,233 | $175,201 | $2,127 |
| **128** | Central America/Caribbean | Slipper | Mexico City | 31 | $96,113 | $340,122 | $4,028 |
| **129** | Central America/Caribbean | Sport Shoe | Mexico City | 3 | $2,196 | $23,183 | $59 |
| **130** | Central America/Caribbean | Women's Casual | Mexico City | 2 | $31,301 | $91,171 | $973 |
| **131** | Central America/Caribbean | Women's Dress | Mexico City | 7 | $69,553 | $257,437 | $1,614 |
| **132** | Central America/Caribbean | Boot | San Juan | 31 | $32,892 | $135,309 | $1,504 |
| **133** | Central America/Caribbean | Men's Casual | San Juan | 2 | $44,909 | $182,986 | $1,355 |
| **134** | Central America/Caribbean | Men's Dress | San Juan | 8 | $68,482 | $137,355 | $2,756 |
| **135** | Central America/Caribbean | Sandal | San Juan | 27 | $60,515 | $210,250 | $3,287 |
| **136** | Central America/Caribbean | Slipper | San Juan | 7 | $217,891 | $707,919 | $6,825 |
| **137** | Central America/Caribbean | Sport Shoe | San Juan | 4 | $936 | $4,546 | $74 |
| **138** | Central America/Caribbean | Women's Casual | San Juan | 10 | $104,420 | $318,207 | $4,240 |
| **139** | Central America/Caribbean | Women's Dress | San Juan | 16 | $109,110 | $336,513 | $3,776 |
| **140** | Eastern Europe | Boot | Budapest | 22 | $74,102 | $317,515 | $3,341 |
| **141** | Eastern Europe | Men's Casual | Budapest | 6 | $66,936 | $87,655 | $3,944 |
| **142** | Eastern Europe | Men's Dress | Budapest | 3 | $37,499 | $147,214 | $930 |
| **143** | Eastern Europe | Sandal | Budapest | 5 | $1,814 | $4,894 | $96 |
| **144** | Eastern Europe | Slipper | Budapest | 17 | $111,816 | $453,821 | $4,070 |
| **145** | Eastern Europe | Sport Shoe | Budapest | 23 | $16,460 | $79,416 | $790 |
| **146** | Eastern Europe | Women's Casual | Budapest | 3 | $49,880 | $137,093 | $1,528 |
| **147** | Eastern Europe | Women's Dress | Budapest | 6 | $52,022 | $144,360 | $1,452 |
| **148** | Eastern Europe | Boot | Moscow | 23 | $67,476 | $329,604 | $3,142 |
| **149** | Eastern Europe | Men's Casual | Moscow | 3 | $55,094 | $156,554 | $1,895 |
| **150** | Eastern Europe | Men's Dress | Moscow | 11 | $113,119 | $302,236 | $4,004 |
| **151** | Eastern Europe | Slipper | Moscow | 11 | $127,033 | $520,271 | $3,983 |
| **152** | Eastern Europe | Sport Shoe | Moscow | 23 | $21,464 | $110,822 | $859 |
| **153** | Eastern Europe | Women's Casual | Moscow | 6 | $104,119 | $211,220 | $2,325 |
| **154** | Eastern Europe | Women's Dress | Moscow | 10 | $72,671 | $196,973 | $2,227 |
| **155** | Eastern Europe | Boot | Prague | 11 | $86,215 | $341,326 | $3,555 |
| **156** | Eastern Europe | Men's Casual | Prague | 12 | $150,273 | $336,151 | $7,455 |
| **157** | Eastern Europe | Men's Dress | Prague | 9 | $102,448 | $231,514 | $2,492 |
| **158** | Eastern Europe | Sandal | Prague | 2 | $712 | $3,384 | $48 |
| **159** | Eastern Europe | Slipper | Prague | 29 | $128,971 | $585,026 | $5,346 |
| **160** | Eastern Europe | Sport Shoe | Prague | 18 | $23,708 | $117,976 | $623 |
| **161** | Eastern Europe | Women's Casual | Prague | 1 | $15,897 | $33,800 | $414 |
| **162** | Eastern Europe | Women's Dress | Prague | 14 | $128,497 | $425,237 | $3,434 |
| **163** | Eastern Europe | Boot | Warsaw | 26 | $78,992 | $363,358 | $3,246 |
| **164** | Eastern Europe | Men's Casual | Warsaw | 15 | $304,093 | $729,044 | $9,364 |
| **165** | Eastern Europe | Men's Dress | Warsaw | 10 | $82,695 | $205,338 | $2,862 |
| **166** | Eastern Europe | Sandal | Warsaw | 3 | $1,190 | $960 | $57 |
| **167** | Eastern Europe | Slipper | Warsaw | 16 | $141,878 | $712,365 | $6,336 |
| **168** | Eastern Europe | Sport Shoe | Warsaw | 19 | $29,570 | $139,313 | $1,053 |
| **169** | Eastern Europe | Women's Casual | Warsaw | 3 | $39,360 | $102,641 | $1,365 |
| **170** | Eastern Europe | Women's Dress | Warsaw | 19 | $108,936 | $425,390 | $4,465 |
| **171** | Middle East | Boot | Al-Khobar | 10 | $15,062 | $44,658 | $765 |
| **172** | Middle East | Men's Casual | Al-Khobar | 24 | $340,201 | $616,745 | $13,251 |
| **173** | Middle East | Men's Dress | Al-Khobar | 22 | $261,445 | $711,246 | $6,979 |
| **174** | Middle East | Sandal | Al-Khobar | 2 | $1,380 | $13,343 | $62 |
| **175** | Middle East | Slipper | Al-Khobar | 26 | $66,796 | $201,779 | $3,052 |
| **176** | Middle East | Sport Shoe | Al-Khobar | 2 | $449 | $1,836 | $43 |
| **177** | Middle East | Women's Casual | Al-Khobar | 13 | $226,514 | $447,377 | $5,966 |
| **178** | Middle East | Women's Dress | Al-Khobar | 11 | $241,820 | $611,686 | $6,167 |
| **179** | Middle East | Boot | Dubai | 15 | $90,972 | $403,259 | $4,049 |
| **180** | Middle East | Men's Casual | Dubai | 29 | $419,336 | $868,115 | $17,552 |
| **181** | Middle East | Men's Dress | Dubai | 25 | $324,312 | $746,970 | $8,159 |
| **182** | Middle East | Sandal | Dubai | 24 | $17,492 | $59,985 | $734 |
| **183** | Middle East | Slipper | Dubai | 17 | $387,680 | $1,238,698 | $12,768 |
| **184** | Middle East | Sport Shoe | Dubai | 5 | $1,487 | $11,432 | $70 |
| **185** | Middle East | Women's Casual | Dubai | 19 | $233,374 | $416,012 | $8,102 |
| **186** | Middle East | Women's Dress | Dubai | 19 | $435,891 | $1,292,400 | $12,999 |
| **187** | Middle East | Boot | Tel Aviv | 20 | $65,248 | $222,165 | $2,320 |
| **188** | Middle East | Men's Casual | Tel Aviv | 11 | $1,298,717 | $2,881,005 | $57,362 |
| **189** | Middle East | Men's Dress | Tel Aviv | 24 | $253,814 | $631,479 | $8,727 |
| **190** | Middle East | Sandal | Tel Aviv | 17 | $16,314 | $71,094 | $574 |
| **191** | Middle East | Slipper | Tel Aviv | 21 | $208,004 | $639,427 | $7,738 |
| **192** | Middle East | Sport Shoe | Tel Aviv | 4 | $2,071 | $15,121 | $47 |
| **193** | Middle East | Women's Casual | Tel Aviv | 19 | $288,904 | $790,386 | $12,000 |
| **194** | Middle East | Women's Dress | Tel Aviv | 18 | $434,496 | $1,272,531 | $17,394 |
| **195** | Pacific | Boot | Auckland | 12 | $20,141 | $97,919 | $962 |
| **196** | Pacific | Men's Dress | Auckland | 1 | $4,892 | $538 | $325 |
| **197** | Pacific | Sandal | Auckland | 1 | $325 | $23,897 | $10 |
| **198** | Pacific | Slipper | Auckland | 11 | $33,000 | $136,625 | $1,321 |
| **199** | Pacific | Sport Shoe | Auckland | 5 | $5,117 | $35,246 | $211 |
| **200** | Pacific | Women's Casual | Auckland | 1 | $18,189 | $15,241 | $421 |
| **201** | Pacific | Women's Dress | Auckland | 6 | $42,760 | $158,688 | $1,278 |
| **202** | Pacific | Boot | Canberra | 21 | $32,640 | $188,437 | $1,237 |
| **203** | Pacific | Men's Casual | Canberra | 1 | $24,733 | $45,172 | $614 |
| **204** | Pacific | Men's Dress | Canberra | 1 | $4,231 | $346,780 | $350 |
| **205** | Pacific | Sandal | Canberra | 1 | $1,093 | $8,711 | $21 |
| **206** | Pacific | Slipper | Canberra | 10 | $44,121 | $155,948 | $1,252 |
| **207** | Pacific | Sport Shoe | Canberra | 10 | $12,211 | $80,393 | $336 |
| **208** | Pacific | Women's Casual | Canberra | 1 | $15,032 | $42,469 | $409 |
| **209** | Pacific | Women's Dress | Canberra | 5 | $21,486 | $58,824 | $1,096 |
| **210** | Pacific | Boot | Jakarta | 6 | $11,975 | $50,645 | $523 |
| **211** | Pacific | Men's Casual | Jakarta | 12 | $373,908 | $1,139,026 | $10,960 |
| **212** | Pacific | Men's Dress | Jakarta | 22 | $186,631 | $559,904 | $6,447 |
| **213** | Pacific | Sandal | Jakarta | 31 | $24,940 | $134,557 | $1,112 |
| **214** | Pacific | Slipper | Jakarta | 7 | $22,060 | $82,215 | $861 |
| **215** | Pacific | Sport Shoe | Jakarta | 4 | $6,110 | $26,124 | $164 |
| **216** | Pacific | Women's Casual | Jakarta | 1 | $18,761 | $27,749 | $468 |
| **217** | Pacific | Women's Dress | Jakarta | 1 | $4,659 | $19,899 | $255 |
| **218** | Pacific | Boot | Kuala Lumpur | 15 | $25,796 | $143,063 | $1,110 |
| **219** | Pacific | Men's Casual | Kuala Lumpur | 6 | $106,657 | $310,404 | $4,092 |
| **220** | Pacific | Men's Dress | Kuala Lumpur | 7 | $55,667 | $161,328 | $2,288 |
| **221** | Pacific | Sandal | Kuala Lumpur | 7 | $4,130 | $24,936 | $213 |
| **222** | Pacific | Slipper | Kuala Lumpur | 17 | $83,212 | $382,786 | $2,568 |
| **223** | Pacific | Sport Shoe | Kuala Lumpur | 2 | $450 | $8,136 | $42 |
| **224** | Pacific | Women's Casual | Kuala Lumpur | 2 | $36,110 | $91,052 | $995 |
| **225** | Pacific | Women's Dress | Kuala Lumpur | 8 | $61,108 | $245,543 | $1,977 |
| **226** | Pacific | Boot | Manila | 21 | $31,503 | $110,179 | $1,449 |
| **227** | Pacific | Men's Casual | Manila | 7 | $128,309 | $264,891 | $5,285 |
| **228** | Pacific | Men's Dress | Manila | 14 | $144,151 | $464,158 | $4,414 |
| **229** | Pacific | Sandal | Manila | 18 | $15,759 | $65,223 | $620 |
| **230** | Pacific | Slipper | Manila | 14 | $171,735 | $708,799 | $5,544 |
| **231** | Pacific | Sport Shoe | Manila | 8 | $2,281 | $15,955 | $144 |
| **232** | Pacific | Women's Casual | Manila | 9 | $131,794 | $265,543 | $4,241 |
| **233** | Pacific | Women's Dress | Manila | 12 | $229,372 | $818,328 | $7,265 |
| **234** | Pacific | Boot | Singapore | 2 | $1,520 | $374 | $120 |
| **235** | Pacific | Men's Casual | Singapore | 1 | $28,761 | $89,599 | $690 |
| **236** | Pacific | Men's Dress | Singapore | 3 | $30,619 | $103,585 | $1,148 |
| **237** | Pacific | Sandal | Singapore | 1 | $2,177 | $5,897 | $35 |
| **238** | Pacific | Slipper | Singapore | 6 | $36,612 | $139,288 | $843 |
| **239** | Pacific | Women's Dress | Singapore | 5 | $40,056 | $117,217 | $1,413 |
| **240** | South America | Boot | Bogota | 19 | $15,312 | $35,805 | $1,229 |
| **241** | South America | Men's Casual | Bogota | 2 | $20,835 | $43,155 | $1,136 |
| **242** | South America | Men's Dress | Bogota | 4 | $37,187 | $62,770 | $1,424 |
| **243** | South America | Sandal | Bogota | 16 | $22,712 | $62,856 | $1,292 |
| **244** | South America | Slipper | Bogota | 15 | $33,723 | $88,411 | $2,033 |
| **245** | South America | Sport Shoe | Bogota | 19 | $4,729 | $11,597 | $333 |
| **246** | South America | Women's Dress | Bogota | 14 | $71,736 | $117,761 | $2,646 |
| **247** | South America | Boot | Buenos Aires | 16 | $17,027 | $39,291 | $1,073 |
| **248** | South America | Men's Casual | Buenos Aires | 1 | $16,019 | $15,889 | $498 |
| **249** | South America | Men's Dress | Buenos Aires | 1 | $14,437 | $29,932 | $354 |
| **250** | South America | Sandal | Buenos Aires | 21 | $18,765 | $75,358 | $604 |
| **251** | South America | Slipper | Buenos Aires | 8 | $11,759 | $23,822 | $939 |
| **252** | South America | Sport Shoe | Buenos Aires | 14 | $3,545 | $6,103 | $229 |
| **253** | South America | Women's Casual | Buenos Aires | 1 | $15,470 | $19,479 | $382 |
| **254** | South America | Women's Dress | Buenos Aires | 4 | $21,261 | $31,081 | $964 |
| **255** | South America | Boot | Caracas | 13 | $63,697 | $307,509 | $2,731 |
| **256** | South America | Men's Casual | Caracas | 14 | $245,757 | $445,579 | $7,918 |
| **257** | South America | Men's Dress | Caracas | 15 | $135,371 | $275,526 | $4,710 |
| **258** | South America | Sandal | Caracas | 29 | $22,973 | $118,535 | $1,096 |
| **259** | South America | Slipper | Caracas | 19 | $132,853 | $457,658 | $4,609 |
| **260** | South America | Sport Shoe | Caracas | 4 | $1,716 | $12,360 | $79 |
| **261** | South America | Women's Casual | Caracas | 3 | $42,654 | $68,096 | $1,525 |
| **262** | South America | Women's Dress | Caracas | 26 | $144,302 | $454,123 | $5,274 |
| **263** | South America | Boot | La Paz | 21 | $36,309 | $100,618 | $2,925 |
| **264** | South America | Men's Casual | La Paz | 6 | $124,203 | $184,499 | $4,046 |
| **265** | South America | Men's Dress | La Paz | 11 | $131,079 | $173,417 | $3,698 |
| **266** | South America | Sandal | La Paz | 31 | $27,728 | $81,525 | $945 |
| **267** | South America | Slipper | La Paz | 18 | $125,763 | $338,758 | $6,501 |
| **268** | South America | Sport Shoe | La Paz | 15 | $8,095 | $25,212 | $254 |
| **269** | South America | Women's Casual | La Paz | 6 | $48,260 | $138,402 | $2,547 |
| **270** | South America | Women's Dress | La Paz | 8 | $29,069 | $73,048 | $1,648 |
| **271** | South America | Boot | Montevideo | 15 | $53,703 | $150,601 | $3,226 |
| **272** | South America | Men's Casual | Montevideo | 3 | $52,968 | $76,200 | $1,811 |
| **273** | South America | Men's Dress | Montevideo | 8 | $45,566 | $125,584 | $2,708 |
| **274** | South America | Sandal | Montevideo | 12 | $27,742 | $90,767 | $1,913 |
| **275** | South America | Slipper | Montevideo | 28 | $80,525 | $236,273 | $3,419 |
| **276** | South America | Sport Shoe | Montevideo | 22 | $8,365 | $39,256 | $361 |
| **277** | South America | Women's Casual | Montevideo | 3 | $28,343 | $66,442 | $1,374 |
| **278** | South America | Women's Dress | Montevideo | 5 | $21,434 | $63,913 | $1,213 |
| **279** | South America | Boot | Santiago | 14 | $14,907 | $39,222 | $939 |
| **280** | South America | Men's Dress | Santiago | 3 | $23,117 | $44,160 | $1,026 |
| **281** | South America | Sandal | Santiago | 22 | $12,343 | $35,668 | $631 |
| **282** | South America | Slipper | Santiago | 9 | $23,260 | $46,106 | $1,224 |
| **283** | South America | Sport Shoe | Santiago | 6 | $4,184 | $19,113 | $112 |
| **284** | South America | Women's Casual | Santiago | 1 | $5,709 | $6,972 | $506 |
| **285** | South America | Women's Dress | Santiago | 3 | $21,436 | $45,398 | $759 |
| **286** | South America | Boot | Sao Paulo | 12 | $44,720 | $173,578 | $2,471 |
| **287** | South America | Men's Casual | Sao Paulo | 5 | $85,168 | $107,413 | $3,120 |
| **288** | South America | Men's Dress | Sao Paulo | 5 | $38,912 | $89,758 | $1,740 |
| **289** | South America | Sandal | Sao Paulo | 18 | $33,662 | $121,645 | $1,682 |
| **290** | South America | Slipper | Sao Paulo | 21 | $54,768 | $217,967 | $2,675 |
| **291** | South America | Sport Shoe | Sao Paulo | 7 | $2,427 | $10,132 | $147 |
| **292** | South America | Women's Casual | Sao Paulo | 3 | $38,791 | $117,081 | $1,438 |
| **293** | South America | Women's Dress | Sao Paulo | 13 | $68,387 | $144,670 | $2,714 |
| **294** | United States | Boot | Chicago | 16 | $82,483 | $305,061 | $3,735 |
| **295** | United States | Men's Casual | Chicago | 26 | $408,978 | $831,672 | $17,907 |
| **296** | United States | Men's Dress | Chicago | 28 | $261,607 | $824,485 | $8,915 |
| **297** | United States | Sandal | Chicago | 2 | $601 | $17,121 | $35 |
| **298** | United States | Slipper | Chicago | 13 | $329,235 | $1,049,530 | $10,654 |
| **299** | United States | Sport Shoe | Chicago | 17 | $17,347 | $74,605 | $684 |
| **300** | United States | Women's Casual | Chicago | 11 | $172,021 | $474,524 | $5,399 |
| **301** | United States | Women's Dress | Chicago | 37 | $293,313 | $754,157 | $10,194 |
| **302** | United States | Boot | Los Angeles | 14 | $85,932 | $347,252 | $3,283 |
| **303** | United States | Men's Casual | Los Angeles | 9 | $177,010 | $401,199 | $6,336 |
| **304** | United States | Men's Dress | Los Angeles | 15 | $147,670 | $348,869 | $4,962 |
| **305** | United States | Sandal | Los Angeles | 2 | $737 | $20,838 | $38 |
| **306** | United States | Slipper | Los Angeles | 11 | $98,866 | $330,743 | $3,457 |
| **307** | United States | Sport Shoe | Los Angeles | 19 | $16,307 | $98,221 | $601 |
| **308** | United States | Women's Casual | Los Angeles | 6 | $62,661 | $231,285 | $2,346 |
| **309** | United States | Women's Dress | Los Angeles | 16 | $148,129 | $452,383 | $4,289 |
| **310** | United States | Boot | Minneapolis | 16 | $111,940 | $615,489 | $4,475 |
| **311** | United States | Men's Casual | Minneapolis | 16 | $263,712 | $564,741 | $9,991 |
| **312** | United States | Men's Dress | Minneapolis | 22 | $235,842 | $623,645 | $7,344 |
| **313** | United States | Sandal | Minneapolis | 8 | $3,551 | $32,907 | $161 |
| **314** | United States | Slipper | Minneapolis | 16 | $131,813 | $487,233 | $4,833 |
| **315** | United States | Sport Shoe | Minneapolis | 29 | $18,151 | $116,192 | $1,009 |
| **316** | United States | Women's Casual | Minneapolis | 7 | $110,760 | $287,412 | $3,440 |
| **317** | United States | Women's Dress | Minneapolis | 27 | $224,168 | $760,977 | $5,820 |
| **318** | United States | Boot | New York | 18 | $97,151 | $495,479 | $3,983 |
| **319** | United States | Men's Casual | New York | 20 | $456,985 | $890,096 | $13,453 |
| **320** | United States | Men's Dress | New York | 18 | $191,755 | $658,134 | $5,399 |
| **321** | United States | Sandal | New York | 1 | $554 | $5,060 | $23 |
| **322** | United States | Slipper | New York | 24 | $252,758 | $1,059,333 | $8,503 |
| **323** | United States | Sport Shoe | New York | 23 | $22,190 | $141,140 | $847 |
| **324** | United States | Women's Casual | New York | 10 | $178,842 | $438,035 | $4,236 |
| **325** | United States | Women's Dress | New York | 17 | $288,972 | $1,129,697 | $10,257 |
| **326** | United States | Boot | Seattle | 15 | $70,790 | $226,678 | $3,039 |
| **327** | United States | Men's Casual | Seattle | 6 | $65,842 | $112,538 | $3,395 |
| **328** | United States | Men's Dress | Seattle | 10 | $132,397 | $274,310 | $3,153 |
| **329** | United States | Sandal | Seattle | 10 | $6,596 | $18,768 | $181 |
| **330** | United States | Slipper | Seattle | 10 | $155,255 | $553,502 | $5,277 |
| **331** | United States | Sport Shoe | Seattle | 29 | $30,408 | $108,266 | $1,021 |
| **332** | United States | Women's Casual | Seattle | 2 | $17,252 | $28,513 | $790 |
| **333** | United States | Women's Dress | Seattle | 21 | $133,405 | $392,307 | $4,037 |
| **334** | Western Europe | Boot | Copenhagen | 2 | $1,663 | $4,657 | $129 |
| **335** | Western Europe | Men's Casual | Copenhagen | 1 | $38,492 | $90,672 | $767 |
| **336** | Western Europe | Men's Dress | Copenhagen | 2 | $12,415 | $36,074 | $686 |
| **337** | Western Europe | Slipper | Copenhagen | 4 | $15,908 | $69,133 | $594 |
| **338** | Western Europe | Sport Shoe | Copenhagen | 1 | $1,927 | $17,683 | $31 |
| **339** | Western Europe | Sport Shoe | Copenhagen | 13 | $101,922 | $327,742 | $4,204 |
| **340** | Western Europe | Women's Casual | Copenhagen | 26 | $502,636 | $1,110,412 | $17,448 |
| **341** | Western Europe | Women's Dress | Copenhagen | 3 | $18,153 | $62,048 | $664 |
| **342** | Western Europe | Boot | Geneva | 22 | $41,341 | $171,030 | $1,560 |
| **343** | Western Europe | Men's Casual | Geneva | 4 | $71,618 | $138,897 | $2,484 |
| **344** | Western Europe | Men's Dress | Geneva | 3 | $26,888 | $60,544 | $1,140 |
| **345** | Western Europe | Sandal | Geneva | 3 | $736 | $3,529 | $51 |
| **346** | Western Europe | Slipper | Geneva | 27 | $109,808 | $440,623 | $3,311 |
| **347** | Western Europe | Sport Shoe | Geneva | 17 | $15,951 | $119,953 | $592 |
| **348** | Western Europe | Women's Casual | Geneva | 5 | $69,470 | $226,247 | $2,114 |
| **349** | Western Europe | Women's Dress | Geneva | 14 | $111,396 | $339,166 | $3,036 |
| **350** | Western Europe | Boot | Heidelberg | 14 | $65,610 | $301,779 | $2,829 |
| **351** | Western Europe | Men's Casual | Heidelberg | 12 | $175,694 | $595,118 | $9,845 |
| **352** | Western Europe | Men's Dress | Heidelberg | 16 | $161,679 | $468,267 | $5,373 |
| **353** | Western Europe | Sandal | Heidelberg | 3 | $977 | $4,618 | $62 |
| **354** | Western Europe | Slipper | Heidelberg | 17 | $243,342 | $928,112 | $7,940 |
| **355** | Western Europe | Sport Shoe | Heidelberg | 11 | $38,961 | $230,819 | $1,316 |
| **356** | Western Europe | Women's Casual | Heidelberg | 9 | $141,287 | $424,473 | $3,861 |
| **357** | Western Europe | Women's Dress | Heidelberg | 23 | $140,189 | $403,156 | $4,812 |
| **358** | Western Europe | Boot | Lisbon | 18 | $76,349 | $341,911 | $3,290 |
| **359** | Western Europe | Men's Casual | Lisbon | 18 | $311,341 | $502,959 | $12,247 |
| **360** | Western Europe | Men's Dress | Lisbon | 8 | $108,906 | $328,209 | $2,665 |
| **361** | Western Europe | Sandal | Lisbon | 4 | $1,650 | $24,253 | $64 |
| **362** | Western Europe | Slipper | Lisbon | 12 | $170,694 | $865,325 | $5,925 |
| **363** | Western Europe | Sport Shoe | Lisbon | 19 | $19,686 | $118,262 | $824 |
| **364** | Western Europe | Women's Casual | Lisbon | 3 | $41,939 | $112,366 | $1,266 |
| **365** | Western Europe | Women's Dress | Lisbon | 17 | $167,780 | $538,624 | $4,150 |
| **366** | Western Europe | Boot | London | 31 | $54,449 | $289,527 | $2,321 |
| **367** | Western Europe | Men's Casual | London | 13 | $151,402 | $401,374 | $7,159 |
| **368** | Western Europe | Men's Dress | London | 13 | $151,458 | $446,963 | $4,870 |
| **369** | Western Europe | Sandal | London | 2 | $5,217 | $11,111 | $24 |
| **370** | Western Europe | Slipper | London | 14 | $172,002 | $625,925 | $5,620 |
| **371** | Western Europe | Sport Shoe | London | 10 | $9,165 | $42,239 | $354 |
| **372** | Western Europe | Women's Casual | London | 5 | $68,962 | $162,447 | $1,978 |
| **373** | Western Europe | Women's Dress | London | 25 | $149,354 | $527,226 | $5,084 |
| **374** | Western Europe | Boot | Madrid | 1 | $1,179 | $1,027 | $93 |
| **375** | Western Europe | Men's Casual | Madrid | 4 | $71,014 | $59,011 | $3,784 |
| **376** | Western Europe | Men's Dress | Madrid | 4 | $54,791 | $181,739 | $1,468 |
| **377** | Western Europe | Slipper | Madrid | 4 | $12,127 | $10,234 | $500 |
| **378** | Western Europe | Women's Casual | Madrid | 3 | $50,146 | $113,870 | $1,216 |
| **379** | Western Europe | Women's Dress | Madrid | 1 | $11,385 | $59,192 | $273 |
| **380** | Western Europe | Boot | Paris | 15 | $19,196 | $41,506 | $1,006 |
| **381** | Western Europe | Men's Casual | Paris | 5 | $89,416 | $156,288 | $3,863 |
| **382** | Western Europe | Men's Dress | Paris | 16 | $203,532 | $421,109 | $5,722 |
| **383** | Western Europe | Sandal | Paris | 3 | $1,520 | $23,816 | $60 |
| **384** | Western Europe | Slipper | Paris | 19 | $90,975 | $251,927 | $2,372 |
| **385** | Western Europe | Sport Shoe | Paris | 4 | $3,449 | $28,588 | $186 |
| **386** | Western Europe | Women's Casual | Paris | 5 | $91,243 | $184,365 | $2,388 |
| **387** | Western Europe | Women's Dress | Paris | 19 | $122,546 | $362,247 | $3,727 |
| **388** | Western Europe | Boot | Rome | 23 | $36,244 | $209,271 | $1,455 |
| **389** | Western Europe | Men's Casual | Rome | 2 | $37,271 | $91,670 | $1,761 |
| **390** | Western Europe | Men's Dress | Rome | 2 | $28,249 | $69,058 | $651 |
| **391** | Western Europe | Sandal | Rome | 3 | $1,249 | $4,611 | $48 |
| **392** | Western Europe | Slipper | Rome | 13 | $42,442 | $132,283 | $1,829 |
| **393** | Western Europe | Sport Shoe | Rome | 14 | $9,969 | $74,848 | $549 |
| **394** | Western Europe | Women's Casual | Rome | 2 | $19,964 | $62,256 | $954 |
| **395** | Western Europe | Women's Dress | Rome | 16 | $106,676 | $389,861 | $3,160 |

От таблицата се вижда, че имаме информация за:

Регионът, в който са произведени обувките.

Типът на продуктът, който е произведен.

Градът, в който е произведен продуктът.

Оценката за продуктът.

Продадените стоки в пари от даден продукт.

Наличните стоки в пари.

И върнатите стоки в пари.

1. proc means data=shoes mean;

var inventory sales;

class product;

run;

Резултатът е:

**The MEANS Procedure**

| **Product** | **N Obs** | **Variable** | **Label** | **Mean** |
| --- | --- | --- | --- | --- |
| Boot | 52 | Inventory  Sales | Total Inventory  Total Sales | 187012.90  45202.75 |
| Men's Casual | 45 | Inventory  Sales | Total Inventory  Total Sales | 379672.29  176304.60 |
| Men's Dress | 50 | Inventory  Sales | Total Inventory  Total Sales | 290146.80  110144.86 |
| Sandal | 49 | Inventory  Sales | Total Inventory  Total Sales | 65964.80  17723.18 |
| Slipper | 52 | Inventory  Sales | Total Inventory  Total Sales | 427526.54  118766.04 |
| Sport Shoe | 51 | Inventory  Sales | Total Inventory  Total Sales | 65151.02  12773.86 |
| Women's Casual | 45 | Inventory  Sales | Total Inventory  Total Sales | 215481.13  91952.47 |
| Women's Dress | 51 | Inventory  Sales | Total Inventory  Total Sales | 378525.08  122087.75 |

Вижда се, че средната стойност на наличните продукти и средната стоиност на продажбите.

1. proc means data=shoes median mean min max;

var inventory sales;

class product;

run;

Резултатът е:

**The MEANS Procedure**

| **Product** | **N Obs** | **Variable** | **Label** | **Median** | **Mean** | **Minimum** | **Maximum** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Boot | 52 | Inventory  Sales | Total Inventory  Total Sales | 149859.50  33091.50 | 187012.90  45202.75 | 374.0000000  1179.00 | 882080.00  286497.00 |
| Men's Casual | 45 | Inventory  Sales | Total Inventory  Total Sales | 156554.00  71618.00 | 379672.29  176304.60 | 2176.00  9244.00 | 2881005.00  1298717.00 |
| Men's Dress | 50 | Inventory  Sales | Total Inventory  Total Sales | 177578.00  72637.50 | 290146.80  110144.86 | 538.0000000  3033.00 | 1847559.00  757798.00 |
| Sandal | 49 | Inventory  Sales | Total Inventory  Total Sales | 24936.00  5217.00 | 65964.80  17723.18 | 960.0000000  325.0000000 | 624163.00  200156.00 |
| Slipper | 52 | Inventory  Sales | Total Inventory  Total Sales | 295797.00  87093.50 | 427526.54  118766.04 | 10234.00  3019.00 | 2520085.00  700513.00 |
| Sport Shoe | 51 | Inventory  Sales | Total Inventory  Total Sales | 27998.00  5172.00 | 65151.02  12773.86 | 455.0000000  449.0000000 | 370388.00  101922.00 |
| Women's Casual | 45 | Inventory  Sales | Total Inventory  Total Sales | 117081.00  48567.00 | 215481.13  91952.47 | 6972.00  5389.00 | 1110412.00  502636.00 |
| Women's Dress | 51 | Inventory  Sales | Total Inventory  Total Sales | 245543.00  72671.00 | 378525.08  122087.75 | 19899.00  4659.00 | 2503387.00  756347.00 |

1. proc freq data=work.shoes;

tables product;

run;

Резултатът е:

**The FREQ Procedure**

| **Product** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| --- | --- | --- | --- | --- |
| **Boot** | 52 | 13.16 | 52 | 13.16 |
| **Men's Casual** | 45 | 11.39 | 97 | 24.56 |
| **Men's Dress** | 50 | 12.66 | 147 | 37.22 |
| **Sandal** | 49 | 12.41 | 196 | 49.62 |
| **Slipper** | 52 | 13.16 | 248 | 62.78 |
| **Sport Shoe** | 51 | 12.91 | 299 | 75.70 |
| **Women's Casual** | 45 | 11.39 | 344 | 87.09 |
| **Women's Dress** | 51 | 12.91 | 395 | 100.00 |

Изкарва с каква честота се срещат данните и с какъв процент.

1. title "shoes";

goptions reset=all /\*оформяме текста с дебелина 1.0 \*/

ftext='arial'

htext=1.0

ftitle='arial/bo'

htitle=1.5

colors=(green); /\*задаваме цвят \*/

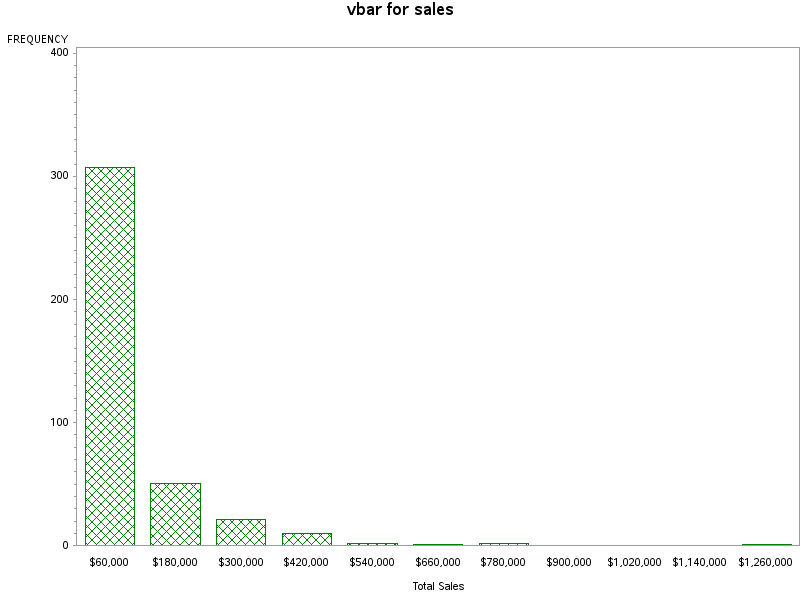
1. title "vbar for sales";

proc gchart data=work.shoes;

vbar sales; /\* vertical bar chart \*/ /\*Чертаем вертикална хистогрaма за количествената променлива продажби\*/

run;

quit;

Резултатът е:

1. title "hbar for type";

goptions reset=all

ftext='arial'

htext=1.0

ftitle='arial/bo' /\*задаваме новото оформление и цвят червен \*/

htitle=1.5

colors=(red);

title "hbar for sales";

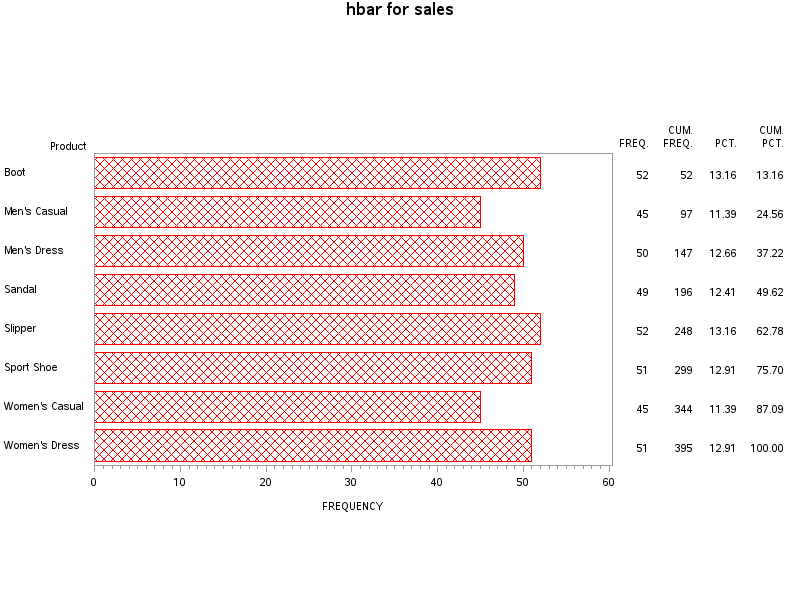
proc gchart data=sashelp.shoes;

hbar product; /\* horizontal bar chart \*/ /\*Чертаем хоризонтална хистограма за кaчествената променлива продукт \*/

run;

quit;

Резултатът е:



1. goptions reset=all

ftext='arial'

htext=1.0

ftitle='arial/bo' /\*Променяме цвета в синьо\*/

htitle=1.5

colors=(blue);

title "pie for product";

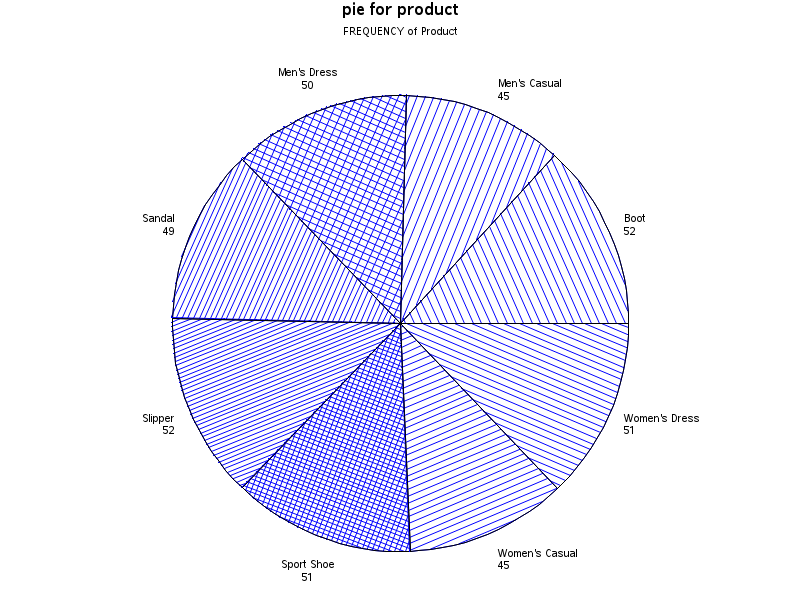
proc gchart data=sashelp.shoes;

pie product; /\*чертаем кръгова диаграма\*/

run;

quit;

Резултатът е:



1. goptions reset=all

ftext='arial'

htext=1.0

ftitle='arial/bo' /\*Променяме цвета в синьо\*/

htitle=1.5;

title "pie3D for product";

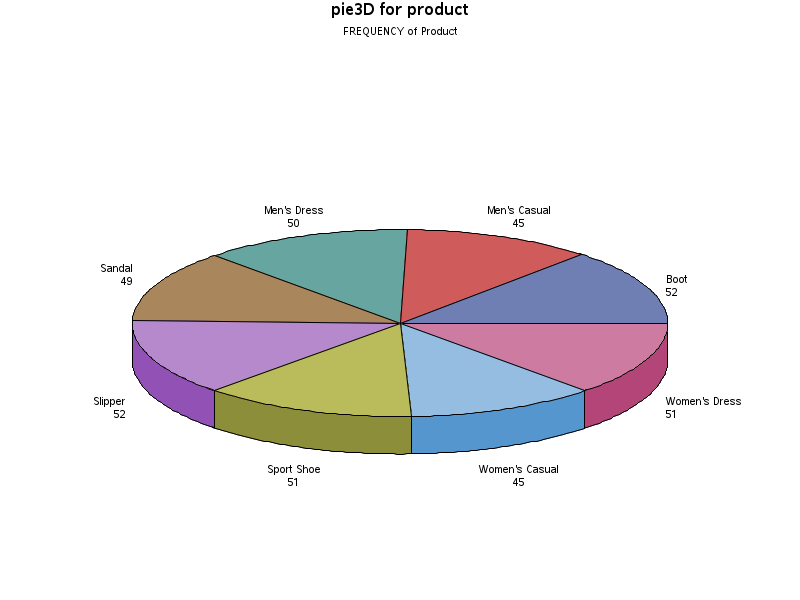
proc gchart data=sashelp.shoes;

pie3D product; /\*чертаем кръгова 3D диаграма\*/

run;

quit;

Резултатът е:

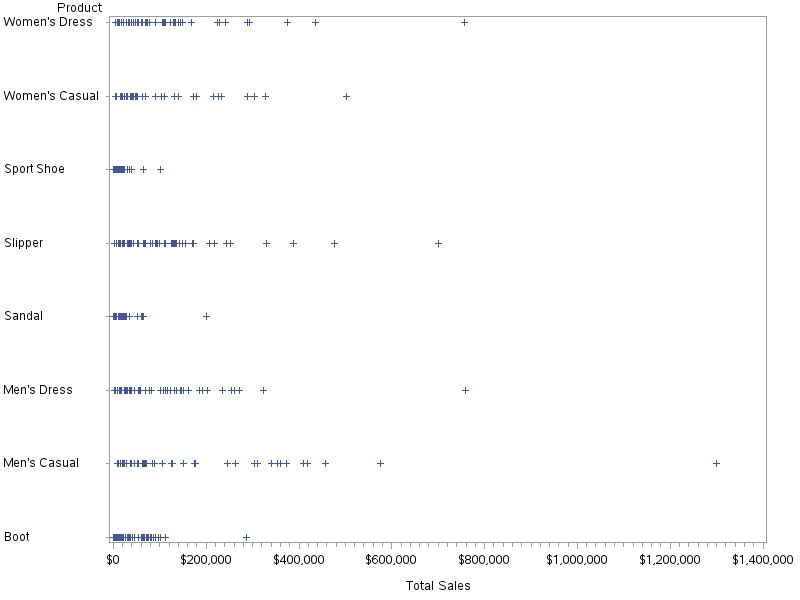


1. proc gplot data=sashelp.shoes;

plot product \* sales; /\*чертаем графика за продукт и продажби\*/

run;

Резултат:



1. symbol interpol=join;

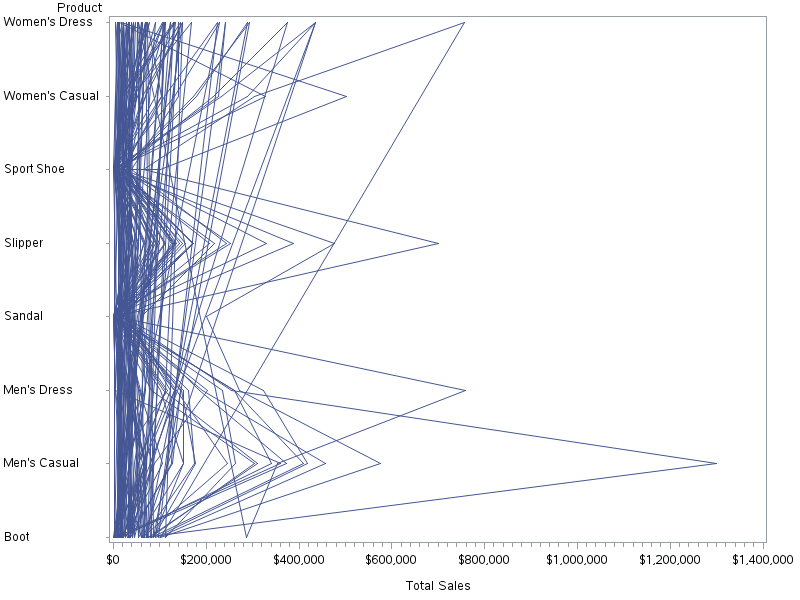
proc gplot data=sashelp.shoes;

plot product \* sales; /\*чертаем графика за продукт и продажби като свързваме

данните с чертичка\*/

run;

Резултат:



1. symbol value=star interpol=join;

proc gplot data=sashelp.shoes;

plot product \* sales; /\*чертаем графика за продукт и продажби като свързваме данните с чертичка и отбелязваме данните с звездичка\*/

run;

Резултат:

