Desktop Certified Associate
Exam Guide

This document provides information on the structure of the Desktop Certified Associate exam, along with the knowledge and skills measured. It will suggest resources to help you prepare for success. It is not intended to build product knowledge.

Awarded Credentials

Upon successful completion of this exam, you will be awarded the title of Tableau Desktop Certified Associate. This title is active for two years from the date achieved.

Target Audience

This exam is for those who have a comprehensive understanding of functionality in Tableau Desktop and at least five months of applying this understanding in the product.

There are no required prerequisites for this exam. Everyone learns differently, and everyday use of Tableau Desktop varies. Recommendations for learning resources and experience with the product are guidelines, not requirements.

Learning Resources

The best preparation is experience and time with the product. We also encourage you to complete the Desktop I: Fundamentals and Desktop II: Intermediate classroom courses.

Explore additional learning resources online:

- Free How-To Training Videos
- Tableau Product Support
- Tableau Product Help
- Visual Analysis Best Practices Guidebook

During the exam, you will have access to public online resources. However, the use of private websites that require a login, or websites and applications allowing for communication with others, are prohibited for the duration of the exam.

Exam Format

Time Limit: 2 hours (Please plan for extra time for online exam setup)
Passing Score: 75%
Number of Questions: 36
Scoring: Automatically scored; point value varies according to question type with hands-on questions worth more
Question Format: Multiple choice, multiple response, true/false, hands-on
Language(s) Offered: English, Japanese, Simplified Chinese, German, French, Brazilian Portuguese, International Spanish
Delivery Platform: Windows Virtual Machine containing Tableau Desktop

System Preparation

For a successful exam experience, ensure that your computer, network, and physical environment are properly configured. This includes running a system tech-check before the exam. Review our Required: Exam Setup document for complete details.

For questions, email certification@tableau.com or visit tableau.com/certification.

Skills Measured

Data Connections - 17%

- Connect to Tableau Server
- Describe connection options
- Connect to different data source types
- Join tables from single and multiple databases
- Prepare Data for Analysis:
  - Blending
  - Metadata Grid
  - Pivot
  - Union
  - Data Interpreter
- Explain data extract formats and capabilities
- Create extracts with multiple tables
- Explain performance considerations between blends, joins, and cross-database joins
- Use Automatic & Custom Split

Organizing & Simplifying Data - 10%

- Understand how to:
  - Filter data
  - Sort data
  - Build groups
  - Build hierarchies
  - Build sets

Field & Chart Types - 15%

- Explain the difference between measures and dimensions
- Explain the difference between discrete and continuous fields
- Explain how to utilize Tableau-generated fields
- Understand how and when to build:
  - Histograms
  - Heat maps
  - Tree maps
  - Bullet graphs
  - Combined axis charts
  - Dual axis charts
  - Scatter plots
  - Cross tabs
  - Bar in bar charts
  - Box plots
- Use titles, captions and tooltips effectively
- Edit axes
- Use mark labels and annotations

Calculations - 18%

- Understand how to:
  - Manipulate string and date calculations
  - Create quick table calculations
  - Use level of detail (LOD) expressions
  - Explain different types of LOD expressions
  - Use Ad-hoc calculations
  - Work with aggregation options
  - Build logic statements
  - Build arithmetic calculations
  - Build grand totals and sub-totals
  - Use calculations in join clauses

Mapping - 13%

- Navigate maps, including:
  - Pan & Zoom
  - Filtering
  - Map layering
  - Custom territories
  - Lasso & Radial selection
  - Geographic search
- Modify locations within Tableau
- Import and manage custom geocoding
- Use a background image map
- Connect to spatial files

Skills Measured

Analytics - 15%

- Use the following in visual analysis:
  - Reference Lines
  - Reference Bands
  - Trend Lines
  - Trend Model
  - Forecasting
  - Drag & Drop Analytics
  - Box Plot
  - Reference distributions
  - Statistical summary card
  - Instant Analytics
  - Data Highlighter

Dashboards - 12%

- Build dashboards and stories
- Create dashboard actions
- Design dashboards for viewing on devices
- Utilize visual best practices for viewing on devices
- Describe publishing & sharing options

Timeliness

Completing a task effectively and efficiently has become a standard that organizations expect from employees. This exam is timed because we view time as a critical competency needed to be successful.

Sample Questions

The questions below are examples intended to give you a sense of how questions will look on the exam. It is not a learning resource for the Desktop product, nor does it provide the experience needed to successfully pass the exam. Sample questions are not indicative of exam difficulty. A solution section follows.

You are encouraged to work through your own solutions first before looking at the solutions provided.

1. To connect to multiple tables in a single data source at one time, what must be specified?
    a. A blend
    b. A calculation
    c. A join
    d. A hierarchy

2. Tableau can create worksheet-specific filters.
    a. True
    b. False

3. What does the box in a box plot represent?
    a. Maximum extent of the data
    b. The range of the middle half of the data points
    c. The median of the middle half of the data points
    d. The outliers of the data

The following questions use the dataset Sample-Superstore Subset (Excel), which can be downloaded here. If you are unable to download the file, try accessing it from another internet browser.

4. What is the percent of total Sales for the 'Home Office' Customer Segment in July of 2012?
    a. 23.50%
    b. 23.97%
    c. 20.14%
    d. 32.56%

5. Find the top 10 Product Names by Sales within each region. Which product is ranked #2 in both the Central and West regions in 2011?
    a. Riverside Palais Royal Lawyers Bookcase
    b. Bush Mission Pointe Library
    c. Sharp AL-1530CS Digital Copier
    d. Global Troy Executive Leather Low Back Tilter

6. In the Technology Product Category, which unprofitable state is surrounded by only profitable states?

a. Colorado
b. Missouri
c. Wyoming
d. Utah

7. If 2013 Sales numbers were expected to increase by 50% in the following year, what would be the total estimated sales for the Consumer Segment in 2014?

a. $4,278,540
b. $816,999
c. $2,752,823
d. $802,365

8. In which Region do all Product Categories fall beneath the overall average profit?

a. All Regions
b. Central
c. East
d. South
e. West

9. Which Product Sub-Category has a Shipping Cost to Sales ratio of above 3%?

a. Tables
b. Chairs & Chairmats
c. Paper
d. Binders and Binder Accessories

10. Find the customer with the lowest overall profit. What is his/her profit ratio?

a. 2.35%
b. 1%
c. -17.54%
d. -771.39%

11. Determine which State in the Central Region has the highest distribution of profits using interquartile ranges.

a. South Dakota
b. North Dakota
c. Minnesota
d. Iowa

12. Look at the sum of profits for each Product Sub-Category. Which sub-category is $31,069 below the average profit across all categories?

a. Appliances
b. Bookcases
c. Envelopes
d. Paper

13. What percent of the total profit do the top 10 customers by Sales represent?

a. 3.50%
b. 5.03%
c. 17.54%
d. None of the Above

14. What was the Moving Average of Sales in June of 2012, including six months prior and six months after?

a. $101,752
b. $180,036
c. $188,552
d. $286,170

15. Create a histogram showing the number of Sales using Sales Bins of $1,000. Which bins have profit ratios (profit as a percentage of sales) of more than 25%? (Select all that apply)

a. 1,000
b. 3,000
c. 7,000
d. 8,000
e. 10,000
f. 11,000
g. 18,000

Solutions

1. To connect to multiple tables in a single data source at one time, what must be specified?
    c. A join

2. Tableau can create worksheet-specific filters.
    a. True

3. What does the box in a box plot represent?
    b. The range of the middle half of the data points

4. What is the percent of total Sales for the 'Home Office' Customer Segment in July of 2012?
    b. 23.97%

5. Find the top 10 Product Names by Sales within each region. Which product is ranked #2 in both the Central & West regions in 2011?
    c. Sharp AL-1530CS Digital Copier

6. In the Technology Product Category, which unprofitable state is surrounded by only profitable states?
    a. Colorado

7. If 2013 Sales numbers were expected to increase by 50% in the following year, what would be the total estimated sales for the Consumer Segment in 2014?
    b. $816,999

8. In which Region do all Product Categories fall beneath the overall average profit?
    d. South

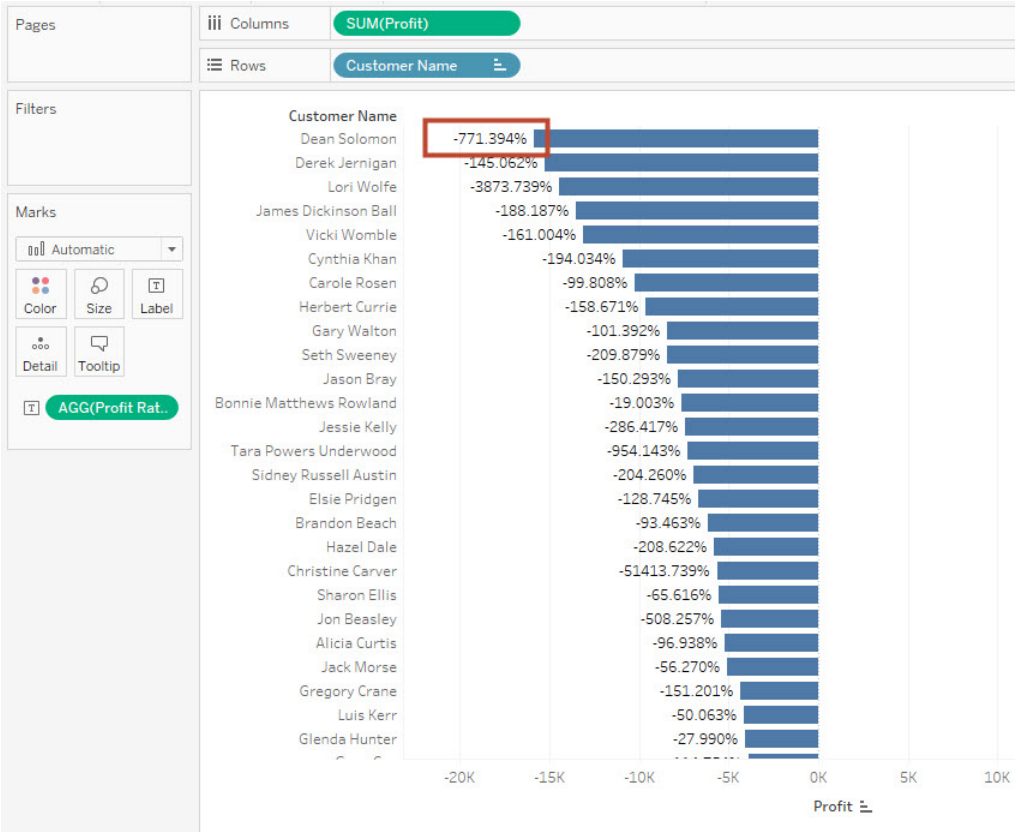
9. Which Product Sub-Category has a Shipping Cost to Sales ratio of above 3%?
    c. Paper

Additional Guidance

Below there is additional guidance on a suggested method of finding the answer. You may find there are other ways determine the correct answer. The focus for this exam is the destination (i.e. accuracy), rather than the journey.

10. Find the customer with the lowest overall profit. What is his/her profit ratio?

    The answer to this question can be found by looking at profits by customer and sort ascending by profit. Once you identify your customer contributing the least to your profits, add a profit ratio calculation (Sum([Profit])/Sum([Sales])) to the label or tooltip.

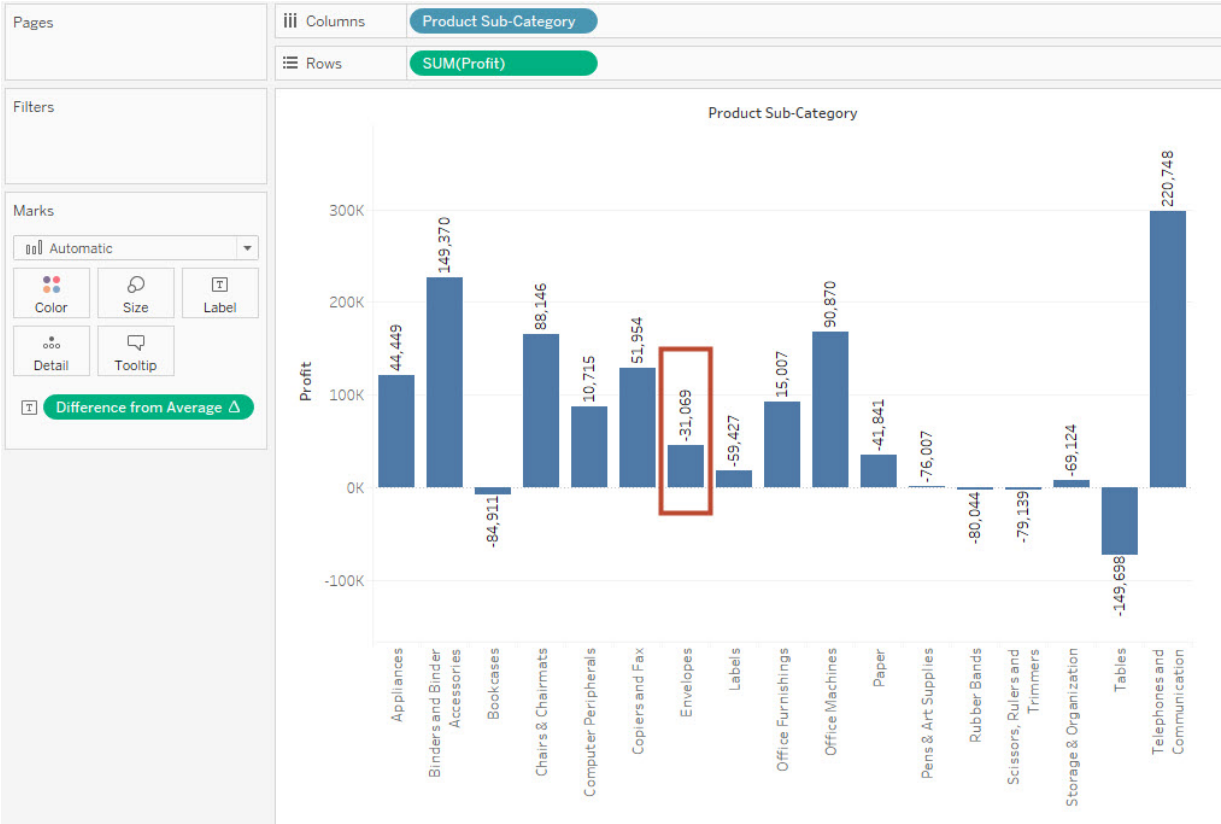


11. Determine which State in the Central Region has the highest distribution of profits using interquartile ranges.

The answer to this question can be found by showing Profit by State or Province, disaggregating your measures, and showing distribution. You can use the available box plot option, or choose distribution – quartiles – 4, to show quartiles.

12. Look at the sum of profits for each Product Sub-Category. Which sub-category is $31,069 below the average profit across all categories?

The answer to this question can be found by creating a table calculation looking at the sum of profit and subtracting from the window average (SUM([Profit]) –WINDOW_AVG(SUM([Profit]))). Using the calculation in your view and applying the label will reveal the difference from average for each sub-category.



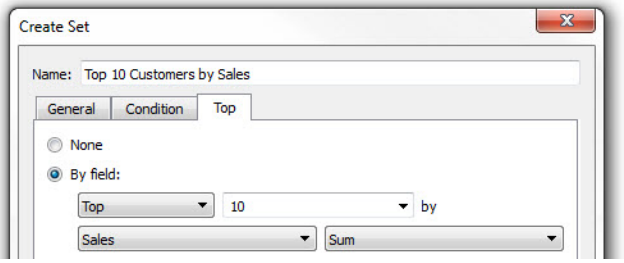
Step-by-Step

Below are step-by-step solutions for a suggested method of finding the answer. You may find there are other ways to determine the correct answer for each question.

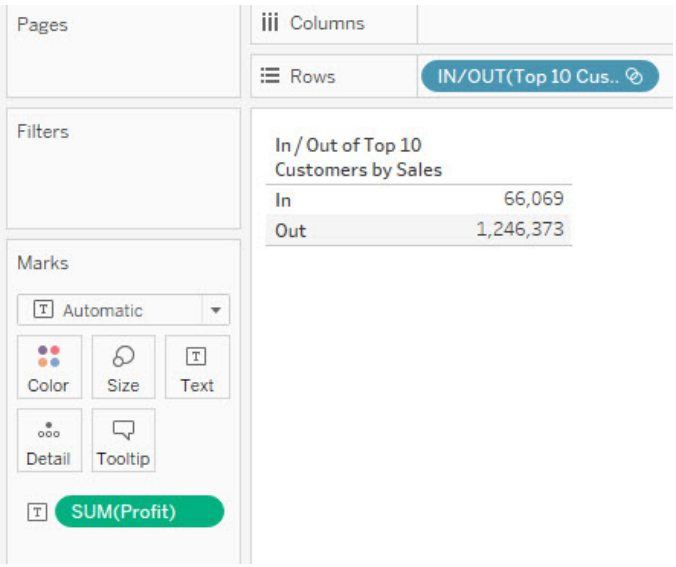
13. What percent of the total profit do the top 10 customers by Sales represent?

The answer to this question can be found by building a set for the top 10 Customers by Sales, then using that set in a view that uses the table calculation "percent of total."

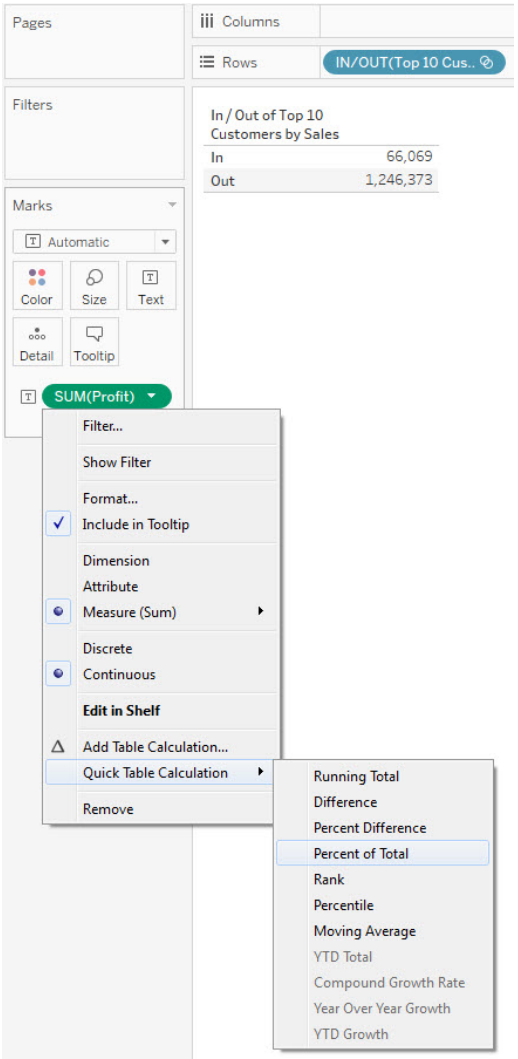
a. Build a Set from Customer Name with the Top 10 by Sum of Sales.



b. Include that Set in your view to display IN/OUT, along with Profit as the measure.



c. Convert Profit to a Table Calculation for Percent of Total.



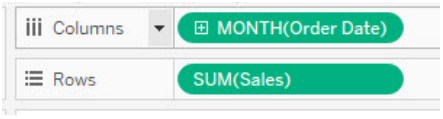
Final Response:

Answer: b) 5.03%

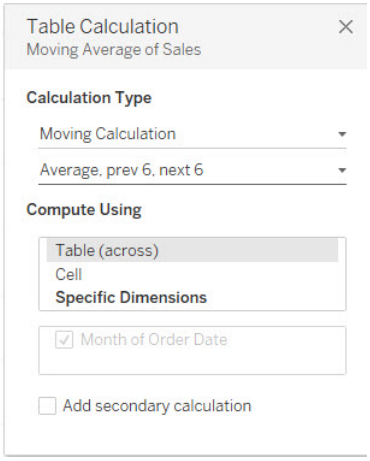
14. What was the Moving Average of Sales in June of 2012, including six months prior and six months after?

The answer to this question can be found by creating a view with Sales by continuous Month, then using a table calculation to present a moving average.

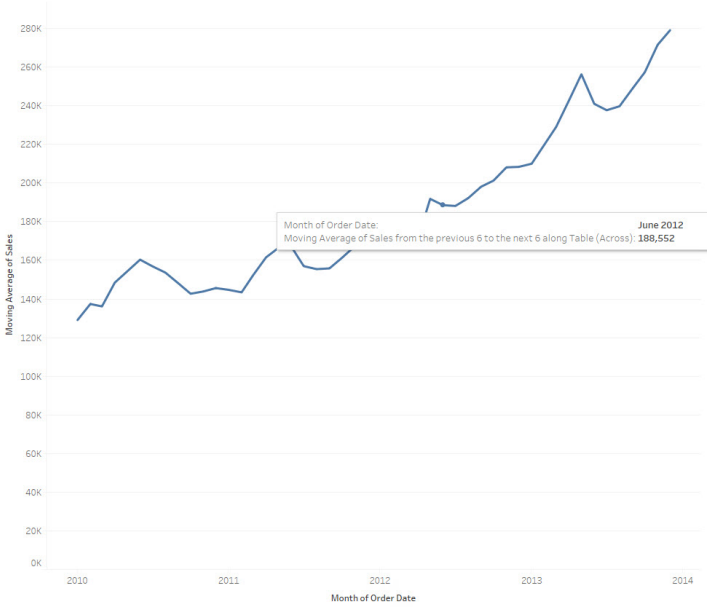
a. Build a view with continous Month and Sum of Sales.



b. Right-click on Sum(Sales) and choose Add Table Calculation. Select a Moving Average with Previous 6 Values and Next 6 Values, moving Across the table.



c. Once complete, hover over June 2012 and the tooltip will give the specific answer.

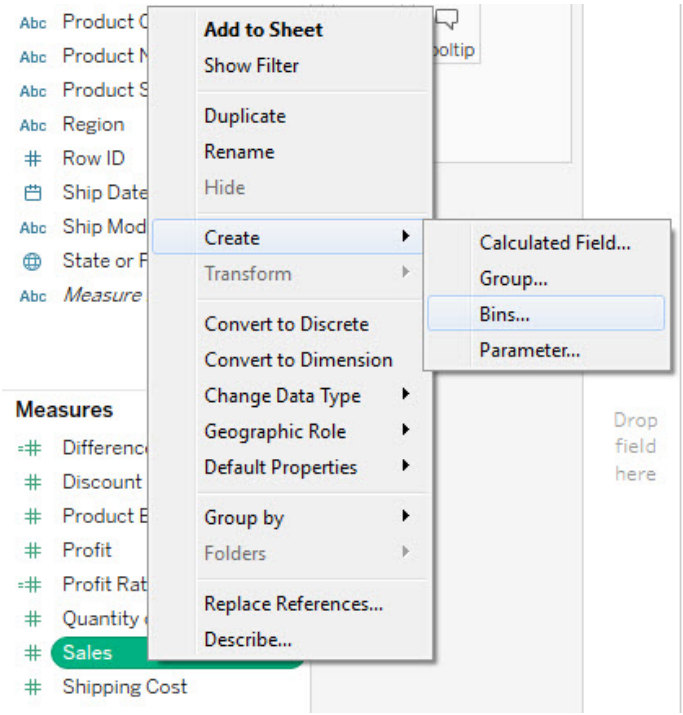


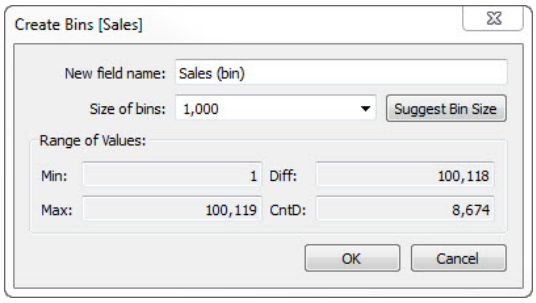
Answer: c)$188,552

15. Create a histogram showing the number of Sales using Sales Bins of $1,000. Which bins have profit ratios (profit as a percentage of sales) of more than 25%? (Select all that apply)

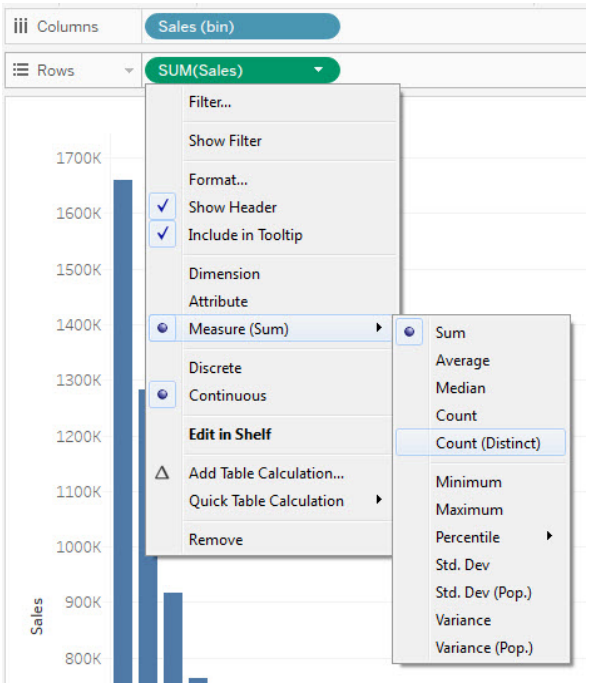
Creating this solution involves creating the bin of 1,000 each from Sales, including it in a view along with Sales shown as a Count, creating the Profit Margin calculated field, and filtering the view by Profit Margin greater than 25%.

a. Right-click on Sales in the Measures pane and choose "Create" and "Bins". Then change the bin size to 1000.





b. Once the bin is created, build a view with Sales (bin) on Columns and Sales on Rows. Then change Sales (on the Rows shelf) to the Count function.



c. Create the Profit Margin calculated field and include it as a label.

- Use the formula SUM([Profit])/SUM([Sales]).
- Format the field as a percentage.
- Drag the Profit Margin to the shelf label.

d. Filter the view to only show bins with a Profit Margin of greater than 25%.

- Drag Profit Margin to filter.
- Choose “At Least” and the value “.25”.

Final Answer: c) 7,000, d) 8,000, f) 11,000, g) 18,000