

1. What was the city with the highest sales?
  - a. New York City - 256.397.000 \$
2. What is the average discount given for all orders?
  - a. 15.62%
3. What is the most popular product among customers in the "Consumer" segment?
  - a. Staple Envelope - Quantity: 104 - Sum of Sales: 846.00\$
4. What is the total profit made for the "Office Supplies" category?
  - a. \$122,474.00
5. 1. Who is the customer who has made the most purchases? (*Hint: use the "Order ID column to answer the question."*)
  - a. William Brown - 37 Orders
6. What state made the most profit?
  - a. California, \$76,368.00
7. How many orders were shipped via "Standard Class" ship mode?
  - a. 5967
8. Which region had the highest sales in the month of June?
  - a. West, \$55,953.00
9. Calculate the price per unit of each product (before discounts), and put it in a separate column. What's the most expensive product? *Hint: use the quantity, sales, and discount columns.*
  - a. Cisco TelePresence System EX90 Videoconferencing Unit - \$7,546.00 (sheets - filter)
10. Create a pivot table that shows the total sales for each manufacturer and category combination. In the "Technology" category, which manufacturer had the second highest sales?
  - a. Canon, \$107,506.00

11. 1. Create a new column that calculates the profit margin for each order (*hint: profit/sales*)

a. Column profit\_margin

12. Use a VLOOKUP function to create a new column that shows the product sub-category for each product based on the separate sub-category sheet.

What is the subcategory of "Xerox 1887"? -Paper

13. Create a new column that calculates the number of days between the order date and the ship date for each order.

Create a conditional formatting "color scale" for this column, from greenish to reddish.

What is the number of days for order id - "CA-2015-100363"? - 5

14. Use the INDEX and MATCH functions to create a new column that shows the shipping cost for each order based on the separate shipping prices sheet. Assume that quantity or weight doesn't matter.

What is the shipping price for order id "CA-2015-100678"? - 8.03\$

15. Create a new column that concatenates the customer name, city, and state into a single string for each order.

Select the correct result for CA-2015-100090

Name:Ed Braxton - City:San Francisco - State:California

16. Use the IFS function to create a new column that categorizes each order as "High," "Low" or "Loss" based on profit and sales criteria. Profit is considered to be “high” if:

- a. Sales are above 200 and profit is above 20
- b. If profit is above 40.
- c. Otherwise: If the profit is above 0 but below 20, this is categorized as “low”
- d. If the profit is below 0, this is categorized as “loss.”

Use conditional formatting to colour the columns with the values “high” in green and the value “loss” in red.

How many “losses” do you have? - 2063

17. In a new sheet, create a dropdown of category and product which returns the price for a unit (which you previously solved in exercise 9.)

- a. Hint: In order to make your job easier and for it to look cleaner, you should first define “named ranges” for every column you will use - product name, category, unit price.
- b. Create a drop-down list of categories:
  - i. In a separate cell, use data validation to create a drop-down list of categories, using the category column in your data as the source.
  - ii. In the data validation criteria, use “Dropdown (from a range)” and put the named range of your category column in there.
- c. In a separate sheet, use the “filter” function to filter the products based on your chosen category. Give this a named range too.
- d. Create a drop-down list of product names based on the selected category; use this named range you have created in the separate sheet.
- e. Use the INDEX MATCH function to find the corresponding product unit price. You could use this structure:
  - i. `=INDEX(unit_price, MATCH(1, (category=The_category_cell)*(product_name=The_product_cell), 0), 1)`

Note: Unit\_price, category, and product\_name are named ranges.