



Data Analysis

Question Appeared in: ModelOff 2013 Round 2

Time Allocated: 20 minutes

INTRODUCTION

You are working as a business analyst at a leading hardware retailer. You have been asked to assist with the analysis of some recent sales data from one of your hardware stores.

DATA STRUCTURE

The data covers the first 6 months of the year 2013 and has a line for each different item type sold on each invoice. One or more lines may be associated with a single invoice.

Note that each line also has a quantity field that represents the quantity of that particular item type sold on that invoice.

Each invoice is associated with one Manager on Duty and one Sales Assistant.

RECOMMENDED APPROACH

The format of the data and the questions you will need to answer very strongly lends itself to doing the analysis with the aid of a PivotTable. You may also benefit from adding some extra calculation columns to the table of data.



QUESTIONS

QUESTION 1

Over the entire analysis period, what was the quantity of item 10 sold while John Jones was the Manager on duty? Select the closest answer.

- a. 300
- b. 600
- c. 900
- d. 2,000

QUESTION 2

Over the entire analysis period, what were the 3 highest selling items by quantity?

- a. 8, 17, 40
- b. 4, 11, 49
- c. 6, 17, 18
- d. 7, 11, 33

QUESTION 3

Over the entire analysis period, which sales person sold the highest cumulative quantity of a single item, and which item was it?

- a. Kelly, Item 17
- b. Sally, Item 17
- c. Kelly, Item 20
- d. Sally, Item 20



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QUESTION 4

What was sales person Wendel's total Sales over the analysis period? Select the closest answer.

- a. \$15,000
- b. \$30,000
- c. \$300,000
- d. \$500,000

QUESTION 5

How many invoices did sales person Sally create over the analysis period?

- a. 723
- b. 985
- c. 318
- d. 650

QUESTION 6

During the month of May, which postal code bought the most of item 5 by quantity?

- a. 3011
- b. 3014
- c. 3029
- d. 3032

QUESTION 7

During the month of February, how many postal codes bought more than 400 products by quantity?

- a. 3
- b. 4
- c. 5
- d. 6



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QUESTION 8

Over the entire dataset, which 3 items did Postcode 3020 spend the greatest dollars on?

- a. 6, 9, 46
- b. 3, 6, 9
- c. 7, 20, 28
- d. 6, 9, 44

QUESTION 9

What is the rank of sales persons from highest to lowest based on the number of invoices written during the month of May?

- a. Kelly, Sally, Amy, Wendel, Benny
- b. Kelly, Wendel, Amy, Sally, Benny
- c. Kelly, Amy, Wendel, Sally, Benny
- d. Kelly, Amy, Sally, Benny, Wendel

QUESTION 10

What was the invoice number of the largest invoice by revenue that sales person Wendel wrote during the analysis period?

- a. 143
- b. 2166
- c. 3269
- d. 3327

QUESTION 11

Over the entire analysis period, what is the rank of sales persons according to the dollar value of discounts given, from most discounts to least discounts?

- a. Kelly, Amy, Wendel, Sally, Benny
- b. Kelly, Wendel, Amy, Benny, Sally
- c. Amy, Wendel, Kelly, Benny, Sally
- d. Amy, Kelly, Wendel, Sally, Benny



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QUESTION 12

Which month had the highest revenue?

- a. March
- b. April
- c. May
- d. June

QUESTION 13

Only considering postal codes 3013, 3017 and 3031, which item had the highest total profit during the month of February?

- a. 3
- b. 6
- c. 17
- d. 44

QUESTION 14

What is the rank of months from highest to lowest based on profit over the entire analysis period?

- a. March, June, April, May, January, February
- b. March, June, May, April, February, January
- c. June, April, May, January, February, March
- d. March, June, May, January, February, April

QUESTION 15

During which 3 months did manager John Jones have the highest cumulative profit ignoring all sales to postal codes 3019 and 3028 and ignoring all sales of items 4, 5, 6, 17 and 18?

- a. March, May, June
- b. February, March, May
- c. February, March, June
- d. February, May, June



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QUESTION 16

What quantity of item 3 was sold by sales persons Benny and Kelly together during the month of June?

- a. 9
- b. 116
- c. 134
- d. 475



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Answers

1	B	Correct Answer is 554
2	A	
3	A	
4	C	Correct Answer is \$316,759.67
5	D	
6	C	
7	C	
8	A	
9	C	
10	A	
11	C	
12	A	
13	C	
14	A	
15	B	
16	B	