Free Trial

Weekly Challenge

Solve the challenge, share your solution and summit the ranks of our Community!

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IDEAS WANTED
We're actively looking for ideas on how to improve Weekly Challenges and would love to hear what you think!
SUBMIT FEEDBACK ▸

Challenge #81: Multi-Level Bill of Materials Problem

JoeM
Alteryx Alumni (Retired)

Last week's solution can be found here!

This week's challenge was brought to you by no other than the distinguished @Joe_Mako!

A bill of materials or product structure (sometimes bill of material, BOM or associated list) is a list of the raw materials, sub-assemblies, intermediate assemblies, subcomponents, parts and the subcomponents each needed to manufacture an end product.

In the bill of materials, each record is a line item with a Line ID, Level, Part Number, Description, Unit, Quantity, and Parent ID. Your challenge is to calculate the 'Full Quantity' and 'Parent Quantity' of each line item. For example, 1 car has 4 wheels, each wheel has 5 bolt assemblies, and each bolt assembly has 2 washers. For the washer line item, the Full Quantity is 40, and the Parent Quantity is 20.
The ideal solution would work for any number of levels.

Charlie Chaplin on the Assembly Line

📎 **challenge_81_start_file.yxmd**   ⬇

📎 **challenge_81_solution.yxzp**   ⬇
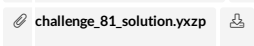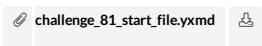
`Interface` `Intermediate` `Join` `Macros` `Preparation`

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👤 🅐🅒🅔 **patrick_digan**
17 - Castor
@JoeM @Joe_Mako Fun challenge.

▷ Spoiler
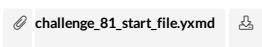
📎 **challenge_81_start_file.yxmd**   ⬇

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Really fun challenge, @Joe_Mako!!

Started to create an Iterative macro, but then remembered techniques from past challenges and decided to do it macro-less. Took a slightly different angle than @patrick_digan

▷ Spoiler

🔗 **challenge_81_EHB_completed.yxmd** ⬇

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gnans19
11 - Bolide

I took Iterative Macro route.

Thank you @Joe_Mako for the challenge.
@estherb47 @patrick_digan Liked your solutions.

▷ Spoiler

🔗 **challenge_81_Gnans.yxmd** ⬇

🔗 **IterativeMacro.yxmc** ⬇

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🅐🅒🅔 **PhilipMannering**
15 - Aurora

Similar to @gnans19, and I'm guessing anyone else who uses an iterative macro. See below for solution,

▷ Spoiler

🔗 **challenge_81 - Multi Level Bill of Material.yxzp** ⬇

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🅐🅒🅔 **NicoleJohnson**
15 - Aurora

My solution! Took the Iterative macro approach, and while it technically worked, I couldn't figure out how to get the iterative results to automatically sort into Line ID order before output... but I was happy enough to get the iterative part working, so it'll do :)

▷ Spoiler

🔗 **challenge_81_NicoleJohnson.yxmc** ⬇

🔗 **Challenge_81Test_NicoleJohnson.yxmd** ⬇

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🅐🅒🅔 **SeanAdams**
17 - Castor

thanks for the challenge @Joe_Mako!

Very similar approach to @gnans19, and @NicoleJohnson and @PhilipMannering but not as slick!

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LordNeilLord
15 - Aurora

I was going to an iterative macro like the others had done but it seems a bit overkill for the problem at hand, so I went for a more simplistic approach.

▷ Spoiler

📎 **challenge_81_LNL.yxmd** 📥

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LandonG
8 - Asteroid

Solution attached.

📎 **challenge_81_start_file.yxzp** 📥

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ACE **ggruccio**
ACE Emeritus

I'm becoming very attached to macros!

📎 **challenge_81_gg_finish.yxzp** 📥

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