

Nested Structures

Program #7c will use two structures one nested inside another.

The ACME Screw and Bolt Co. needs you to create an inventory system for their metric bolt selection.

Input:

Ask the user to enter:

1. The number of bolts to add to inventory.
2. The part number for each bolt.
3. The metric diameter for each bolt.
4. The metric pitch for each bolt.
5. The metric length for each bolt.
6. The quantity for each bolt.
7. The cost for each bolt.

Processing Requirements:


- 1) You will need to create two STRUCTURES:
 - a. THREADS: that will contain the following:
 - Diameter – INTEGER
 - Pitch – SINGLE
 - Length – INTEGER
 - b. BOLTS: that will contain the following:
 - Part Number – STRING * 7
 - Description – STRING * 20
 - Quantity – INTEGER
 - Cost – SINGLE
 - Thread Description - THREADS
- 2) Using the number of bolts the user entered create an array of BOLTS
- 3) Using the metric diameter, pitch and length given by the user, create a STRING Description for each bolt and save to the appropriate bolt (i.e. 4mm X .7 X 12mm).

Output:

Print all BOLTS data to the screen with appropriate headers.

OUTPUT SCREEN

Note: The string field “Part Number” is right justified on the output screen.

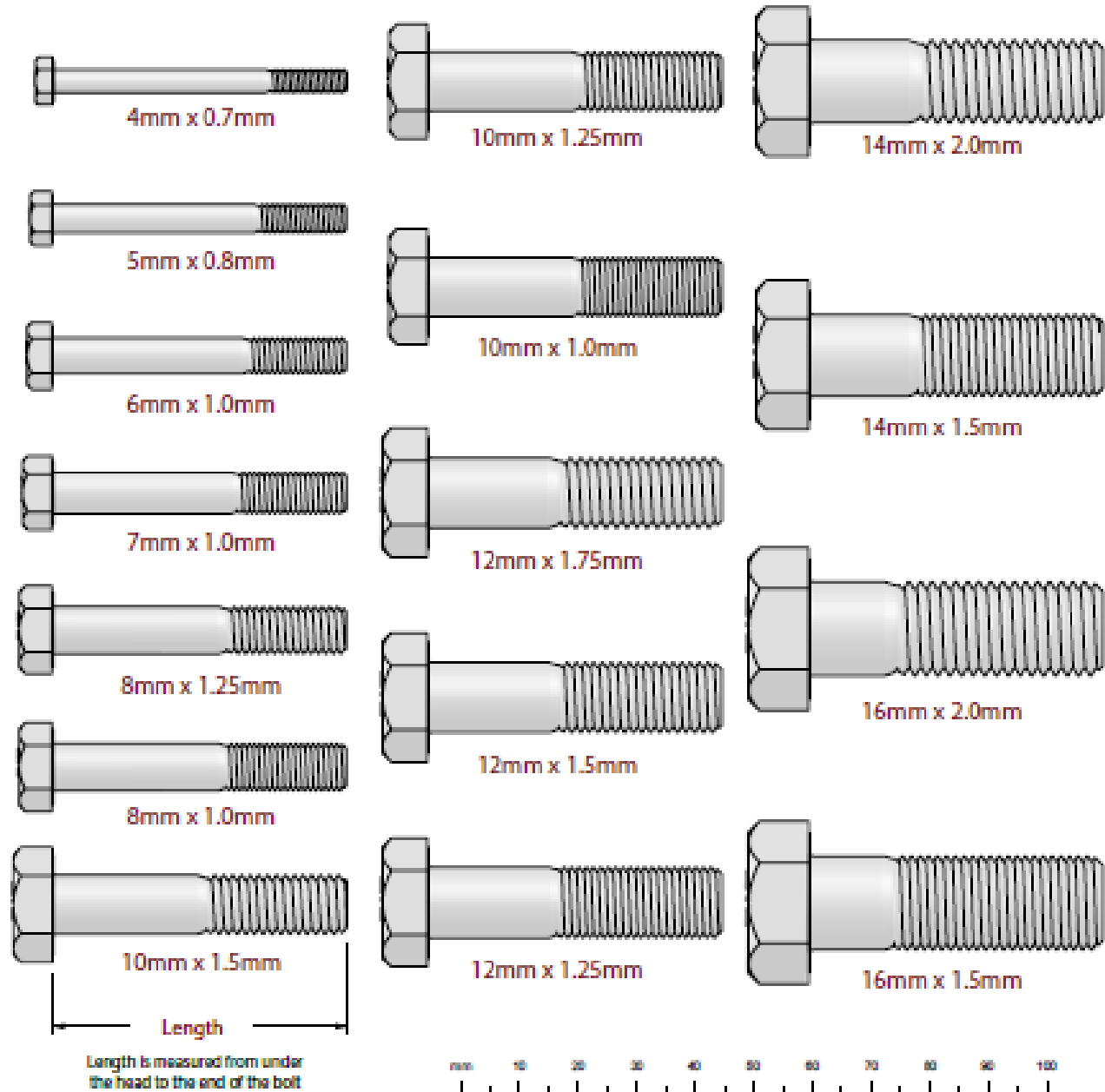


Qty.	Part No.	Desc.	Diameter	Pitch	Length	Cost	Extended Cost
111	A1	4mm × 0.7mm	4 mm	0.70 mm	111 mm	0.11	12.21
222	B22	10mm × 1.25mm	10 mm	1.25 mm	222 mm	0.22	48.84
333	C333	14mm × 2.0mm	14 mm	2.00 mm	333 mm	0.33	109.89
444	D4444	12mm × 1.75mm	12 mm	1.75 mm	444 mm	0.44	195.36
555	d55555	12mm × 1.25	12 mm	1.25 mm	555 mm	0.55	305.25
666	e66666	16mm × 1.5mm	16 mm	1.50 mm	666 mm	0.66	439.56

Standard Metric Hex Bolt Sizes and Thread Pitches

www.boltdepot.com/tools

(Note: Head sizes may differ from what is shown due to differences between metric standards)



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IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

0 1 2 3 4 5 6 inches