

2 EGR 120  
 3 Introduction to Engineering  
 4 File: Tables1.xls  
 5

6 Example 1: Tables of Calculations using MicroSoft Excel

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 8 Problem: Shown below is a material list for building a small building. Given the items, unit cost,  
 9 quantity, and tax rate, complete the rest of the table (columns E, F, and G) including grand  
 10 totals at the bottom. Use an **absolute address** when referring to the tax rate so that the tax rate  
 11 could be modified if necessary.

12  
 13 Tax rate: \$ 0.045  
 14

Item	Unit Cost	Quantity	Total (before tax)	Tax	Total (after tax)
2x4x8 lumber	\$ 2.65	64	\$ 169.60	\$ 7.63	\$ 177.23
2x6x8 lumber	\$ 4.36	6	\$ 26.16	\$ 1.18	\$ 27.34
2x8x8 lumber	\$ 5.89	8	\$ 47.12	\$ 2.12	\$ 49.24
2x8x16 lumber	\$ 10.21	26	\$ 265.46	\$ 11.95	\$ 277.41
1/2" CDX plywood	\$ 9.75	28	\$ 273.00	\$ 12.29	\$ 285.29
8x8x16 blocks	\$ 1.75	120	\$ 210.00	\$ 9.45	\$ 219.45
30x48 window	\$ 85.00	2	\$ 170.00	\$ 7.65	\$ 177.65
felt roofing paper (roll)	\$ 7.50	2	\$ 15.00	\$ 0.68	\$ 15.68
asphalt shingles (bundle)	\$ 6.95	14	\$ 97.30	\$ 4.38	\$ 101.68
16d nails (pound)	\$ 1.29	25	\$ 32.25	\$ 1.45	\$ 33.70
8d nails (pound)	\$ 1.29	25	\$ 32.25	\$ 1.45	\$ 33.70
1.5" roofing nails (pound)	\$ 1.19	20	\$ 23.80	\$ 1.07	\$ 24.87
36x80 exterior door	\$ 139.00	1	\$ 139.00	\$ 6.26	\$ 145.26
8' garage door w/hardware	\$ 199.00	1	\$ 199.00	\$ 8.96	\$ 207.96
<b>Totals:</b>			<b>\$ 1,699.94</b>	<b>\$ 76.50</b>	<b>\$ 1,776.44</b>

31  
 32 Formulas:

33 Contents of cell E16: =C16\*D16

34 Contents of cell F16: =E16\*F\$13 (Note: an **absolute address** was used for the tax rate in F13)

35 Contents of cell G16: =SUM(E16:F16)  
 36

37 The sum in E30 was found by highlighting the block E16 through E30 (with E30 being blank) and  
 38 clicking the **AutoSum** ( $\Sigma$ ) button on the toolbar.