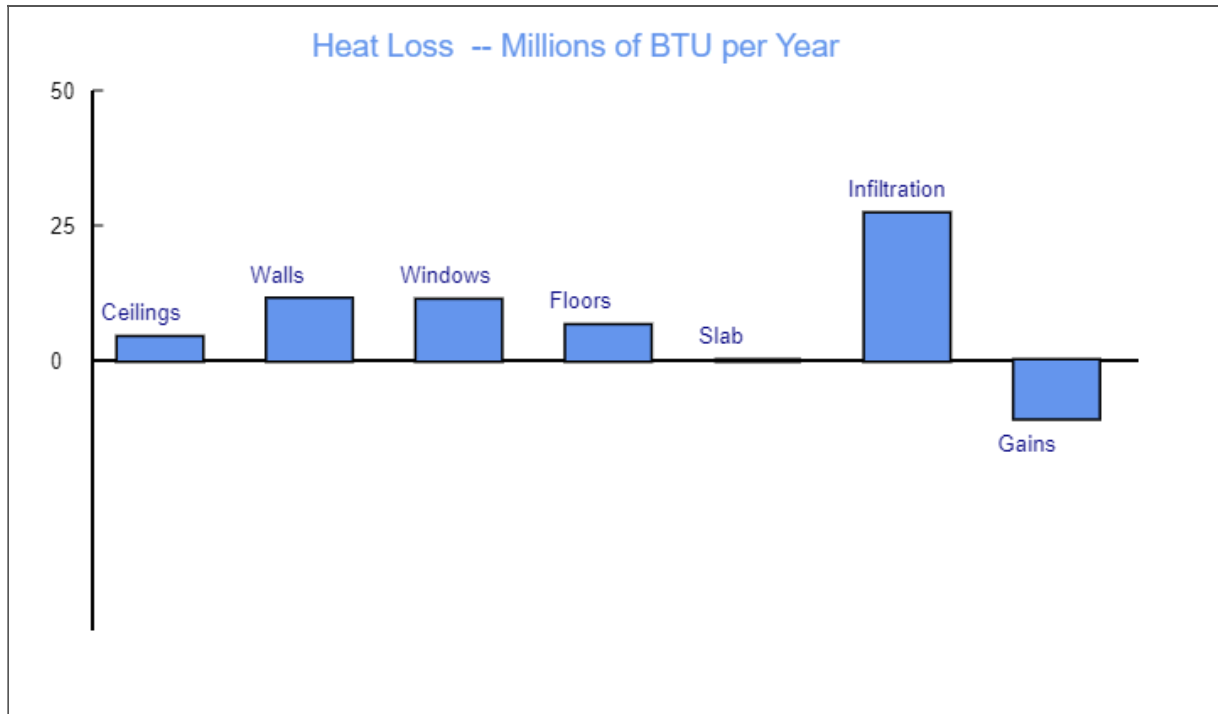


Design Temperature and Fuel Type Inputs					
Title	Brian's House				
Design outdoor Temperature	0	Degrees F	Coldest temperature expected in a "normal" year more...		
Heating Degree Days	7000	Degree F - day	Heating Degree Days more...		
<input checked="" type="radio"/> Natural Gas <input type="radio"/> Fuel Oil <input type="radio"/> Propane <input type="radio"/> Electricity	1.75	\$'s Per Therm	60	Furnace Efficiency (%) more...	
Area and Rvalue Inputs					
Ceilings	Ceilings --- Enter the area and R value for each ceiling area in the house that is exposed to outside temperatures. Help on R values ...				
	Area (sqft)	Rvalue	UA (BTU/hr-F)	Design Loss (BTU/hr)	Yearly Heat Loss (million BTU/yr)
Ceiling 1	768	30	25.6	1792	4.3
Ceiling 2	0	0	0	0	0
Ceiling 3	0	0	0	0	0
Ceiling 4	0	0	0	0	0
Walls	Enter the area and R value for each wall area in the house that is exposed to outside temperatures. Do not include window and door area.				
	Area (sqft)	Rvalue	UA (BTU/hr-F)	Design Loss (BTU/hr)	Yearly Heat Loss (million BTU/yr)
wall 1	886	13	68.2	4771	11.4
wall 2	0	0	0	0	0
wall 3	0	0	0	0	0
wall 4	0	0	0	0	0
Windows & Doors	Enter the area and R value for each group of windows or doors having the same R value. (U = 1/R, so a window listed with a U of 0.33 has an R value of 3)				
	Area (sqft)	Rvalue	UA (BTU/hr-F)	Design Loss (BTU/hr)	Yearly Heat Loss (million BTU/yr)
Group 1	120	1.8	66.7	4667	11.2
Group 2	0	0	0	0	0
Group 3	0	0	0	0	0
Group 4	0	0	0	0	0
Floors	Floors - Wood Joist Type --- Enter the area and R value for each floor area in the house that is exposed to outside temperatures. Estimating R Value for crawl spaces ...				
	Area (sqft)	Rvalue	UA (BTU/hr-F)	Design Loss (BTU/hr)	Yearly Heat Loss (million BTU/yr)
Floor 1	768	20	38.4	2688	6.5
Floor 2	0	0	0	0	0
Floor 3	0	0	0	0	0
Floor 4	0	0	0	0	0
Slabs	Slab on Grade Floors --- Heat loss from slab on grade floors is primarily dependent on the length of the perimeter and not the area of the floor. "Rvalue" here is the effective R value per foot of perimeter. Estimating effective R Value for slabs ...				
	Perimeter (ft)	Rvalue per ft of perimeter (1)	UA (BTU/hr-F)	Design Loss (BTU/hr)	Yearly Heat Loss (million BTU/yr)
Full Slab	0	2.0	0	0	0
Infiltration	House Volume is the total volume of the heated space of the house cubic feet (floor area times the ceiling height) Typical Air Changes Per Hour: 0.33 -- very tight -- minimum for health 0.5 -- tight -- new, <u>careful</u> construction 1.0 -- leaky -- typical existing construction??				
	House Volume (cubic ft)	Air Changes per hour	UA (BTU/hr-F)	Design Loss (BTU/hr)	Yearly Heat Loss (million BTU/yr)
Whole House	18000	0.5	162	11340	27.2
Internal Heat	These are heat gains from warm bodies, lights, appliances, ...				

Gains	This is heat that your furnace does not need to provide. If you don't want to account for internal heat gains, enter 0 for the number of occupants				
	Number of Occupants		Internal <i>Gains</i> (BTU/hr)	Design Loss (BTU/hr)	Yearly Heat Loss (million BTU/yr)
	3		1227	-1227	-10.7

Summary Outputs (see table above for detail outputs)

<div style="border: 2px solid black; padding: 2px; display: inline-block; margin-right: 10px;">Calculate</div> Click to update Heat Loss results.						
Item	UA (BTU/hr-F)	Design Loss (BTU/hr)	Year Loss (Million BTU/yr)	Fuel Cost (US dollars)	Ten Year Cost 10% infla \$'s	Greenhouse Gas (lb CO2)
Ceiling Loss	26	1792	4.3	125	1998	860
Wall Loss	68	4771	11.4	334	5320	2290
Window Loss	67	4667	11.2	327	5204	2240
Floor Loss	38	2688	6.5	188	2997	1290
Slab Loss	0	0	0	0	0	0
Infiltration	162	11340	27.2	794	12645	5443
Totals	361	25257	60.6	1768	28165	12124
Internal Gains	Internal heat gains (warm bodies, lights, ...) supply some of the heat listed above -- the line below shows approximately the contribution of internal heat gains -- this is heat that your furnace does NOT have to supply.					
		-1227	-10.7	-313	-4992	



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