

Section I – Percentages

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1. What is 24% of 42.5?
2. What is 8% of 356.25?
3. What is 96% of 380?
4. What is 32% of 1140?
5. 43 is what percent of 1075?
6. What is 12% of 118.75?
7. 17 is what percent of 85?
8. What is 48% of 53.125?

Section II – Blueprint Calculations

9. Shape A, Scale = 32, baseboard job. 13. Shape G, Scale = 50, baseboard job.
10. Shape A, Scale = 32, pipe job. 14. Shape L, Scale = 24, caulking job.
11. Shape A, Scale = 36, pipe job. 15. Shape M, Scale = 32, paint job.
12. Shape F, Scale = 15, carpet job. 16. Shape Q, Scale = 30, panel job.

Section III – Carbon Footprint

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17. How many mmBTUs are generated by running a ET 199-H for 6 hours?
21. How many mmBTUs are generated by running a CGa-25 for 2 days?
18. How many pounds of CO₂ are released by burning kerosene for 8 hours in a CGa-7?
22. How many mmBTUs are generated by running a CGa-4 for 6 weeks?
19. How many pounds of CO₂ are released by burning 401 pounds of Hemlock?
23. Ammonia, 238oF cycle, 1359 (lb/hr) flowrate, outside is 47°F, inside 63°F?
20. Room A's TSA, made of Timber, walnut, if inside is 79°F and outside is 87°F?
24. How many mmBTUs are generated by running a GV90+3 for 5 days?

Section IV – Green Building

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25. How many pounds of CO₂ are released by burning 236 pounds of Cottonwood?
29. How many pounds of CO₂ are released by burning 358 pounds of Red Oak?
26. How many mmBTUs are generated by burning 91 pounds of Cottonwood?
30. How many pounds of CO₂ are released by burning crude oil (No. 1) for 4 weeks in a CGi-5?
27. How many mmBTUs are generated by running a EG-35 for 5 days?
31. How many mmBTUs are generated by running a CGa-4 for 10 hours?
28. Room A's Wall #3, made of Asbestos-cement, if inside is 56°F and outside is 34°F?
32. How many mmBTUs are generated by burning 411 pounds of Norway Pine?