

## Section I – Percentages

**225**

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1. What is 8% of 227.5?
2. What is 64% of 38.75?
3. 41 is 96% of what number?
4. What is 12% of 259.375?
5. What is 24% of 331.25?
6. 43 is what percent of 537.5?
7. 23 is 96% of what number?
8. 17 is what percent of 340?

## Section II – Blueprint Calculations

9. Shape A, Scale = 48, paint job.

13. Shape J, Scale = 15, panel job.

10. Shape A, Scale = 32, carpet job.

14. Shape L, Scale = 15, wire job.

11. Shape E, Scale = 48, caulking job.

15. Shape R, Scale = 48, wire job.

12. Shape F, Scale = 30, wire job.

16. Shape N, Scale = 50, panel job.

## Section III – Carbon Footprint

225

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17. How many mmbTUs are generated by running a AB-120C for 7 days?
18. How many pounds of CO<sub>2</sub> are released by burning residual fuel oil (No. 6) for 3 days in a ULT 230?
19. How many mmbTUs are generated by running a CGi-5 for 8 days?
20. Room B's Wall #3, made of Foam glass, if inside is 67°F and outside is 89°F?
21. Room A's Wall #4, made of Mineral wool insulation materials, if inside is 74°F and outside is 99°F?
22. Room A's Wall #3, made of Softwoods (fir, pine ..), if inside is 55°F and outside is 104°F?
23. How many pounds of CO<sub>2</sub> are released by burning 443 pounds of Hackberry?
24. How many pounds of CO<sub>2</sub> are released by burning Anthracite coal for 1 days in a ET 199-C?

## Section IV – Green Building

225

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25. Room C's 4 Walls, made of Silicon oil, if inside is 80°F and outside is 89°F?
26. Ammonia, 104oF cycle, 1138 (lb/hr) flowrate, outside is 51°F, inside 61°F?
27. How many pounds of CO2 are released by burning 97 pounds of Apple?
28. Room B's Wall #3, made of Fiber insulating board, if inside is 65°F and outside is 38°F?
29. How many mmBTUs are generated by running a EG-75 for 3 days?
30. How many pounds of CO2 are released by burning 76 pounds of Jack Pine?
31. Room C's Wall #1, made of Soil, clay, if inside is 58°F and outside is 4°F?
32. Room C's Wall #3, made of Brick, insulating, if inside is 84°F and outside is 60°F?