

Section I – Percentages

211

1. What is 72% of 220?
2. What is 72% of 167.5?
3. What is 48% of 71.875?
4. 47 is 48% of what number?
5. 91 is what percent of 1137.5?
6. What is 96% of 14?
7. What is 48% of 17.5?
8. What is 36% of 67.1875?

Section II – Blueprint Calculations

9. Shape E, Scale = 8, baseboard job. 13. Shape F, Scale = 50, panel job.
10. Shape A, Scale = 35, pipe job. 14. Shape M, Scale = 8, baseboard job.
11. Shape D, Scale = 30, caulking job. 15. Shape L, Scale = 30, wire job.
12. Shape F, Scale = 24, pipe job. 16. Shape Q, Scale = 15, baseboard job.

Section III – Carbon Footprint

211

-
17. How many pounds of CO₂ are released by burning butane for 7 days in a ULT 399? 21 How many mmBTUs are generated by burning 393 pounds of Boxelder?
18. Room C's Wall #2, made of Glass, wool Insulation, if inside is 79°F and outside is 41°F? 22 Glycerine cycle, 517 (lb/hr) flowrate, outside is 52°F, inside 56°F?
19. Room C's TSA, made of Hairfelt, if inside is 69°F and outside is 30°F? 23 Room A's Wall #3, made of Straw slab insulation, compressed, if inside is 60°F and outside is 54°F?
20. Room B's Ceiling, made of Wood across the grain, white pine, if inside is 66°F and outside is 69°F? 24 Ethylene glycol cycle, 543 (lb/hr) flowrate, outside is 40°F, inside 48°F?

Section IV – Green Building

211

25. How many mmBTUs are generated by running a CGI-3 for 1 weeks?
26. How many pounds of CO₂ are released by burning 211 pounds of Hemlock?
27. Calcium Chloride cycle, 1332 (lb/hr) flowrate, outside is 49°F, inside 72°F?
28. How many pounds of CO₂ are released by burning heating oil (No. 2) for 6 weeks in a CGI-5?
29. Alcohol, methyl. 40 - 50°F cycle, 503 (lb/hr) flow-rate, outside is 60°F, inside 50°F?
30. Room C's Wall #4, made of Wool, felt, if inside is 69°F and outside is 66°F?
31. How many pounds of CO₂ are released by burning heating oil (No. 2) for 8 days in a AB-80C?
32. Ethyl ether cycle, 897 (lb/hr) flowrate, outside is 73°F, inside 46°F?