

Section I – Percentages

207

1. 51 is 24% of what number?
2. 37 is 64% of what number?
3. What is 48% of 28?
4. 87 is 48% of what number?
5. 7 is 24% of what number?
6. 67 is what percent of 1340?
7. 91 is what percent of 227.5?
8. What is 36% of 295?

Section II – Blueprint Calculations

9. Shape E, Scale = 15, carpet job.

13. Shape I, Scale = 30, tile job.

10. Shape C, Scale = 8, carpet job.

14. Shape M, Scale = 15, brick job.

11. Shape E, Scale = 32, caulking job.

15. Shape M, Scale = 36, molding job.

12. Shape H, Scale = 24, brick job.

16. Shape N, Scale = 35, caulking job.

Section III – Carbon Footprint

207

17. Room C's TSA, made of Plastics, foamed , if inside is 75°F and outside is 46°F?
18. Alcohol, ethyl 32oF (ethanol) cycle, 1468 (lb/hr) flowrate, outside is 83°F, inside 52°F?
19. Room A's Ceiling, made of Fiber hardboard, if inside is 73°F and outside is 68°F?
20. How many pounds of CO₂ are released by burning 395 pounds of Norway Pine?
21. Room B's Wall #1, made of Mineral wool insulation materials, if inside is 77°F and outside is 101°F?
22. Ether cycle, 686 (lb/hr) flowrate, outside is 42°F, inside 56°F?
23. Propane, 32oF cycle, 1209 (lb/hr) flowrate, outside is 43°F, inside 84°F?
24. Decane cycle, 513 (lb/hr) flowrate, outside is 74°F, inside 84°F?

Section IV – Green Building

207

25. Carbon Tetrachloride cycle, 748 (lb/hr) flowrate, outside is 70°F, inside 59°F?
26. How many mmBTUs are generated by running a AB-80H for 6 hours?
27. How many pounds of CO₂ are released by burning Anthracite coal for 3 hours in a CGi-5?
28. How many mmBTUs are generated by running a ET 110-H for 10 days?
29. How many mmBTUs are generated by burning 334 pounds of White Oak?
30. Room B's Wall #1, made of Timber, walnut, if inside is 73°F and outside is 1°F?
31. How many pounds of CO₂ are released by burning motor gasoline for 5 weeks in a EVG 299?
32. Sodium hydrate cycle, 1098 (lb/hr) flowrate, outside is 69°F, inside 84°F?