

Section I – Percentages

219

1. 43 is 48% of what number?
2. 41 is 12% of what number?
3. What is 36% of 1420?
4. What is 72% of 2325?
5. What is 15% of 356.25?
6. What is 24% of 860?
7. 19 is 24% of what number?
8. 51 is what percent of 318.75?

Section II – Blueprint Calculations

9. Shape E, Scale = 8, baseboard job. 13. Shape H, Scale = 15, caulking job.
10. Shape E, Scale = 24, molding job. 14. Shape M, Scale = 36, paint job.
11. Shape A, Scale = 15, wire job. 15. Shape R, Scale = 36, wire job.
12. Shape F, Scale = 35, caulking job. 16. Shape N, Scale = 30, pipe job.

Section III – Carbon Footprint

219

17. How many pounds of CO₂ are released by burning diesel fuel for 3 hours in a CGi-25?
21. Ammonia, 212oF cycle, 1453 (lb/hr) flowrate, outside is 87°F, inside 90°F?
18. How many pounds of CO₂ are released by burning 402 pounds of Sugar Maple?
22. How many pounds of CO₂ are released by burning natural gas for 9 weeks in a AB-155C?
19. How many pounds of CO₂ are released by burning 448 pounds of Boxelder?
23. Room B's TSA, made of Silica aerogel, if inside is 65°F and outside is 30°F?
20. How many pounds of CO₂ are released by burning diesel fuel for 9 days in a EG-75?
24. How many pounds of CO₂ are released by burning diesel fuel for 2 days in a EVG 220?

Section IV – Green Building

219

25. Ammonia, 32oF cycle, 616 (lb/hr) flowrate, outside is 80°F, inside 85°F?
29. Aniline cycle, 667 (lb/hr) flowrate, outside is 79°F, inside 59°F?
26. Room A's Floor, made of Plaster, wood lath, if inside is 63°F and outside is 15°F?
30. Room B's Wall #2, made of Glass, if inside is 76°F and outside is 88°F?
27. Aniline cycle, 618 (lb/hr) flowrate, outside is 73°F, inside 79°F?
31. How many mmBTUs are generated by burning 219 pounds of Cottonwood?
28. How many pounds of CO₂ are released by burning crude oil (No. 1) for 1 months in a CGI-3?
32. How many mmBTUs are generated by burning 387 pounds of Boxelder?