Section I — Percentages

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1.   What is 36% of 148?

2.   89 is 36% of what number?

3.   31 is what percent of 38.75?

4.   37 is 15% of what number?

5. 89 is what percent of 1112.5?

6. What is 36% of 142.1875?

7. 41 is what percent of 256.25?

8. What is 32% of 87.5?

Section II — Blueprint Calculations

9.   Shape B, Scale = 48, molding job.   13.Shape H, Scale = 36, panel job.

10.   Shape A, Scale = 50, baseboard job.   14.Shape R, Scale = 15, tile job.

11.   Shape C, Scale = 32, pipe job.   15.Shape K, Scale = 35, carpet job.

12.   Shape G, Scale = 50, paint job.   16.Shape O, Scale = 35, caulking job.

Section III — Carbon Footprint

205

17.   How many pounds of CO_2 are released by burning 419 pounds of Sugar Maple?

21 How many mmBTUs are generated by running a CGi-8 for 8 months?

18.   Sodium hydrate cycle, 1354 (lb/hr) flowrate, outside is 80°F, inside 69°F?

22 Ether cycle, 928 (lb/hr) flowrate, outside is 81°F, inside 80°F?

19.   How many pounds of CO_2 are released by burning heating oil (No. 2) for 1 hours in a CGa-3?

23 How many pounds of CO_2 are released by burning propane for 7 months in a CGa-7?

20.   How many pounds of CO_2 are released by burning natural gas for 8 hours in a EG-40?

24 How many pounds of CO_2 are released by burning butane for 2 months in a CGi-4?

Section IV — Green Building

205

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25. Room B's Wall #4, made of Polyisoprene natural rubber, if inside is 66°F and outside is 32°F?

29 How many mmBTUs are generated by running a CGa-3 for 1 hours?

26. How many pounds of CO_2 are released by burning 319 pounds of Yellow Birch?

30 Alcohol, methyl. 40 - 50oF cycle, 1131 (lb/hr) flowrate, outside is 47°F, inside 63°F?

27. Ethylene glycol cycle, 1455 (lb/hr) flowrate, outside is 45°F, inside 89°F?

31 How many mmBTUs are generated by running a EG-65 for 10 hours?

28. Propyl Alcohol cycle, 934 (lb/hr) flowrate, outside is 80°F, inside 56°F?

32 Ammonia, 212oF cycle, 1290 (lb/hr) flowrate, outside is 90°F, inside 55°F?