1. $5{,}9\ l = 5{,}9\ dm^3 = \underline{5'900\ cm^3}$

$1{,}06\ g \mathrel{\hat{=}} 1\ cm^3$

$\underline{6'254\ g} \mathrel{\hat{=}} 5'900\ cm^3$

$80'000\ g \mathrel{\hat{=}} 100\ \%$

$6'254\ g \mathrel{\hat{=}} \underline{\underline{7{,}8175\ \%}}$

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2. Dichte Schnee: $0{,}1\ \frac{g}{cm^3}$ } $\cdot 10$

Dichte Wasser: $1\ \frac{g}{cm^3}$ }

$\Rightarrow$ $1\ l$ Wasser $\mathrel{\hat{=}}$ $\underline{\underline{10\ l\ Schnee}}$ $\quad (m = \rho \cdot V)$

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3. $V = s^3 = (17mm)^3 = \underline{4'913\ mm^3} = \underline{4{,}913\ cm^3}$

$\Rightarrow \rho = \frac{m}{V} = \frac{35{,}2\ g}{4{,}913\ cm^3} \approx \underline{\underline{7{,}16\ \frac{g}{cm^3}}}$

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4. $0{,}53\ l = 0{,}53\ dm^3 = \underline{530\ cm^3}$

$m = \rho \cdot V = 0{,}86\ \frac{g}{cm^3} \cdot 530\ cm^3 = \underline{\underline{455{,}8\ g}}$

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5. $V = \frac{m}{\rho} = \frac{370\ g}{2{,}7\ g/cm^3} \approx \underline{\underline{137{,}04\ cm^3}}$

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6. $V = \frac{m}{\rho} = \frac{25'000'000\ g}{1{,}5\ g/cm^3} = \underline{166'666'666{,}\overline{6}\ cm^3}$

$h = \frac{V}{G} = \frac{166'666'666{,}6\ cm^3}{250'000\ cm^2} = \underline{66{,}\overline{6}\ cm}$

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7. $V = 2'000\ cm \cdot 1'000\ cm \cdot 20\ cm = \underline{60'000'000\ cm^3}$

$m = \rho \cdot V = 0{,}20 \frac{g}{cm^3} \cdot 60'000'000\ cm^3 = 12'000'000\ g$

$= \underline{12\ t}$

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8. $V = \frac{m}{\rho} = \frac{12'000'000\ g}{1\ g/cm^3} = 12'000'000\ cm^3$

$= 12'000\ dm^3 = \underline{12'000\ l}$

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9. $1\ dm^3 = \underline{1'000\ cm^3}$ $\rho = 0{,}1 \frac{g}{cm^3}$

$m = V \cdot \rho = 1'000\ cm^3 \cdot 0{,}1 \frac{g}{cm^3} = \underline{100\ g}$ (Wasser!)

$\Rightarrow V_{Wasser} = \frac{m}{\rho} = \frac{100\ g}{1\ g/cm^3} = \underline{100\ cm^3}$

$\Rightarrow V_{Luft} = 1'000\ cm^3 - 100\ cm^3 = \underline{900\ cm^3}$

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10. 80° C : $m = 200\ ml - 6\ g$

$= 200\ g - 6\ g = \underline{194\ g}$

$\Rightarrow \rho = \frac{m}{V} = \frac{194\ g}{200\ cm^3} = \underline{0{,}97 \frac{g}{cm^3}}$

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11. A weniger als $1 \frac{kg}{dm^3}$

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12. A ✓ B ✗ C ✗ D ✓

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13. B < E < F < D < A < G < C

14. Ja.

15. a.) $V = \frac{m}{\rho} = \frac{560\,g}{0{,}7\,g/cm^3} = \underline{\underline{800\,cm^3}}$

b.) $V = \frac{m}{\rho} = \frac{23{,}4\,g}{7{,}8\,g/cm^3} = \underline{\underline{3\,cm^3}}$