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For gases at STP ( 273 K and 1 atm pressure), one mole occupies a volume of 22.4 L . What volume will the following quantities of gases occupy at STP?

1. 1.00 mole of $\mathrm{H}_{2}$
2. 3.20 moles of $\mathrm{O}_{2}$
3. 0.750 mole of $\mathrm{N}_{2}$
4. $\quad 1.75$ moles of $\mathrm{CO}_{2}$
5. 0.50 mole of $\mathrm{NH}_{3}$
6. 5.0 g of $\mathrm{H}_{2}$
7. $100 . \mathrm{g}$ of $\mathrm{O}_{2}$
8. 28.0 g of $\mathrm{N}_{2}$
9. $60 . \mathrm{g} \mathrm{of}_{\mathrm{CO}}^{2}$
10. 10. g of $\mathrm{NH}_{3}$
