## Answers to Practice <br> Problem J

1. $4.01 \mathrm{~g} \mathrm{CO}_{2}$

Homework General
Additional Practice Racecars often burn ethanol, $\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{OH}$, for added performance. The products are carbon dioxide and water. The density of ethanol is $0.816 \mathrm{~g} / \mathrm{mL}$, the density of $\mathrm{CO}_{2}$ is $1.997 \mathrm{~g} / \mathrm{L}$, and the density of $\mathrm{O}_{2}$ is $1.331 \mathrm{~g} / \mathrm{L}$.

1. If the car holds $1.00 \times 10^{5} \mathrm{~mL}$. of ethanol and all of the carbon in it forms carbon dioxide, what volume of carbon dioxide is added to the air? Ans. $7.81 \times$ $10^{4} \mathrm{~L} \mathrm{CO}_{2}$
2. What volume of oxygen is needed to react with 78.3 L of ethanol? Ans. $1.00 \times 10^{5} \mathrm{~L} \mathrm{O}_{2}$ LS Logical
