## Rates for individual reactants

The rate of disappearance of $\mathrm{PH}_{3}$ is $\mathrm{d}\left[\mathrm{PH}_{3}\right] / \mathrm{dt}=-5 \times 10^{-3} \mathrm{M} / \mathrm{s}$

$$
4 \mathrm{PH}_{3} \rightarrow \mathrm{P}_{4}+6 \mathrm{H}_{2}
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What is the reaction rate and the rate of formation of products?

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What is the reaction rate and the rate of formation of products?

$$
\begin{gathered}
\mathrm{v}=5 \times 10^{-3} / 4=1.25 \times 10^{-3} \mathrm{M} / \mathrm{s} \\
\mathrm{~d}\left[\mathrm{P}_{4}\right] / \mathrm{dt}=1.25 \times 10^{-3} \mathrm{M} / \mathrm{s} \\
\mathrm{~d}\left[\mathrm{H}_{2}\right] / \mathrm{dt}=7.5 \times 10^{-3} \mathrm{M} / \mathrm{s}
\end{gathered}
$$

