explain-math example

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0.1 Basic Math Example

$$\begin{aligned}
\text{Initial Statement} :: &\leadsto \{ -2(x+2) = 6 \\
\text{Distribute out -2} :: &\leadsto \begin{cases} (-2 \cdot x) + (-2 \cdot 2) = 6 \\ -2x - 4 = 6 \end{cases} \\
\text{Remove -4 from the left} :: &\leadsto \begin{cases} -2x - 4 + 4 = 6 + 4 \\ -2x = 10 \end{cases} \\
\text{Remove -2 from the left} :: &\leadsto \begin{cases} \frac{-2x}{-2} = \frac{10}{-2} \\ \frac{-2x}{-2} = \frac{10}{-2} \\ x = -5 \end{cases}
\end{aligned}$$

$$\begin{gathered}
\ddots \downarrow \iddots \\
\textit{sol.} \\
x = -5
\end{gathered}$$

0.2 Basic Physics Example

$$\begin{aligned}
\text{Initial Formula} :: &\leadsto \{ p = mv \\
\text{Variables} :: &\leadsto \begin{cases} p = ?\ \text{kg}\ \frac{\text{m}}{\text{s}} \\ m = 3.0\ \text{k.g} \\ v = 5.0\ \text{m/s East} \end{cases} \\
\text{Plug \& solve} :: &\leadsto \{ p = 3 \cdot 5
\end{aligned}$$

$$\begin{gathered}
\ddots \downarrow \iddots \\
\textit{sol.} \\
p = 15\ \text{kg} \cdot \frac{\text{m}}{\text{s}}
\end{gathered}$$