explain-math example

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0.1 Basic Math Example

$$
\begin{aligned}
\text{Initial } \mathfrak{eq}.\ &\downarrow\!\uparrow \longleftrightarrow \begin{cases} -2(x+2) = 6 \end{cases} \\
\text{Distribute out -2 } &\downarrow\!\uparrow \longleftrightarrow \begin{cases} (-2 \cdot x) + (-2 \cdot 2) = 6 \\ -2x - 4 = 6 \end{cases} \\
\text{Remove -4 from the left } &\downarrow\!\uparrow \longleftrightarrow \begin{cases} -2x - 4 + 4 = 6 + 4 \\ -2x = 10 \end{cases} \\
\text{Remove -2 from the left } &\downarrow\!\uparrow \longleftrightarrow \begin{cases} \dfrac{-2x}{-2} = \dfrac{10}{-2} \\ x = -5 \end{cases}
\end{aligned}
$$

$$\mathfrak{sol}.$$

$$x = -5$$

0.2 Basic Physics Example

$$
\begin{aligned}
\text{Initial } \mathfrak{eq}.\ &\downarrow\!\uparrow \longleftrightarrow \begin{cases} p = mv \end{cases} \\
\text{Variables } &\downarrow\!\uparrow \longleftrightarrow \begin{cases} p = ?\ \text{kg}\ \dfrac{\text{m}}{\text{s}} \\ m = 3.0\ \text{k.g} \\ v = 5.0\ \text{m/s East} \end{cases} \\
\text{Plug \& solve } &\downarrow\!\uparrow \longleftrightarrow \begin{cases} p = 3 \cdot 5 \end{cases}
\end{aligned}
$$

$$\mathfrak{sol}.$$

$$p = 15\ \text{kg} \cdot \frac{\text{m}}{\text{s}}$$