explain-math example

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0.1 Basic Math Example

$$\text{Initial } \textit{eq.} \rightarrow \begin{cases} -2(x+2) = 6 \end{cases}$$

$$\text{Distribute out -2} \rightarrow \begin{cases} (-2 \cdot x) + (-2 \cdot 2) = 6 \\ -2x - 4 = 6 \end{cases}$$

$$\text{Remove -4 from the left} \rightarrow \begin{cases} -2x - 4 + 4 = 6 + 4 \\ -2x = 10 \end{cases}$$

$$\text{Remove -2 from the left} \rightarrow \begin{cases} \frac{-2x}{-2} = \frac{10}{-2} \\ x = -5 \end{cases}$$

Sol. §

$$x = -5$$

0.2 Basic Physics Example

$$\text{Initial } \textit{eq.} \rightarrow \begin{cases} p = mv \end{cases}$$

$$\text{Variables} \rightarrow \begin{cases} p = ?\ \text{kg} \cdot \frac{\text{m}}{\text{s}} \\ m = 3.0\ \text{k.g} \\ v = 5.0\ \text{m/s East} \end{cases}$$

$$\text{Plug \& solve} \rightarrow \begin{cases} p = 3 \cdot 5 \end{cases}$$

Sol. §

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