

explain-math example

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0.1 Basic Math Example

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

\Downarrow
sol.

$$x = -5$$

0.2 Basic Physics Example

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

\Downarrow
sol.

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