

Equation Number & Reference	Ground Truth Equation	Discovered Equation
Equation 2 (I.6.20)	$p(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-x^2/2\sigma^2},$	$f = \left(\frac{0.46314177}{\sigma} \right) \left(0.6059228 \left(\sqrt{\frac{x}{\sigma}} \right)^{3.994391} \right) \times 0.86212635$
Equation 7 (I.11.19)	$\mathbf{a} \cdot \mathbf{b} = a_x b_x + a_y b_y + a_z b_z,$	$A = (x_1 y_1) + ((x_2 y_2) + (x_3 y_3))$
Equation 51 (I.50.26)	$x_{\text{out}}(t) = K(\cos \omega t + \epsilon \cos^2 \omega t).$	$x = (((\cos(\omega t) (x_1(\alpha - 2.991099 \times 10^{-8})) - 1.37413245 \times 10^{-8}) + x_1) \cos(\omega t) + 1.575935) - 1.3385427 - 0.23739222$
Equation 21 (I.18.4)	$\mathbf{R} = \frac{m_1 \mathbf{r}_1 + m_2 \mathbf{r}_2}{m_1 + m_2}$	$r = \frac{(m_1 r_1) + (m_2 r_2)}{m_1 + m_2}$
Equation 63 (II.11.20)	$P = \frac{N p_0^2 E}{3 k T}.$	$\text{Pol} = \left(\frac{\frac{N p_0 p_d}{E T} k}{3.0001059} \right) p_d$
Equation 96 (III.15.14)	$m_{\text{eff}} = \frac{h^2}{2 A b^2}.$	$m = h \left(\frac{h}{E_n \cdot 0.8882483 + 5.0833223 \times 10^{-8}} - 0.00011104094 \right) \frac{1}{d^2} \cdot 0.011250258$
Equation 57 (II.6.15b)	$E_{\perp} = \frac{p}{4\pi\epsilon_0} \frac{3 \cos \theta \sin \theta}{r^3}.$	$E_f = \left(\frac{p_d}{r} \cdot \frac{\cos(\theta) \sin(\theta)}{2.037181} \cdot 0.39283985 \right) \frac{1}{r^2 \epsilon} \cdot (r^{0.00012676959} + 0.23802117)$

Table 4: The seven additional equations discovered by LASR on the Feynman Equations dataset (over PYSR). The equations are presented in the form discovered by LASR, and usually reduce to the ground truth equations after some simplification steps. Note that there are minor discrepancies in the variable names between the ground truth equations in the online lectures (www.feynmanlectures.caltech.edu) and the equations in our Feynman equations dataset.