Inline vs. Display Math

The elasticity is $\varepsilon = \frac{dQ}{dP} \cdot \frac{P}{Q}$.

$$\pi = TR - TC \tag{1}$$

Subscripts and Superscripts

$x_i \quad Y_{it} \quad X^2_{i,t-1}$

Greek Letters and Common Symbols

$\alpha \ \beta \ \theta \ \lambda \ \sigma \quad \Sigma \ \Delta \ \Omega \ \infty$

Operators: Sums, Products, Limits, Max

$$\sum_{i=1}^{n} x_i \qquad \lim_{x \to \infty} \qquad \operatorname*{argmax}_{x} f(x)$$

Fractions and Binomials

$$\varepsilon_d = \frac{\%\,\Delta Q_d}{\%\,\Delta P} \qquad \binom{n}{k} = \frac{n!}{k!(n-k)!}$$

Multi-line Derivations with align

$$\hat{\beta} = (X'X)^{-1}X'Y \tag{2}$$
$$\mathrm{Var}(\hat{\beta}) = \sigma^2(X'X)^{-1} \tag{3}$$

Matrices: Linear Algebra & Game Theory

$$\begin{pmatrix} 1 & 0.5 \\ 0.5 & 1 \end{pmatrix} \qquad \begin{pmatrix} (3,3) & (0,5) \\ (5,0) & (1,1) \end{pmatrix}$$

Labeling and Referencing Equations

$$Y = AK^{\alpha}L^{1-\alpha} \tag{4}$$

As shown in Equation (**??**), output depends on...