

# Custom Equation Tags Test

## Test Section

A normal numbered equation:

$$x = y + z \tag{1}$$

A tagged equation (should show “Condition” not a number):

$$Y \uparrow^t E \mid S \setminus \{Y\} \tag{Condition}$$

Another tagged equation:

$$E \perp^t \sigma(\mathcal{C}(E) \setminus S) \mid \sigma(S) \tag{Markov}$$

A LaTeX-symbol-tagged equation (should show “ ” not “ ”):

$$x^2 + y^2 = z^2 \tag{\star}$$

A dollar-wrapped LaTeX tag (should show “ ” same as bare backslash):

$$y = x \tag{\star}$$

Dollar-wrapped double-star tag:

$$\frac{a}{b} = \frac{c}{d} \tag{\star\star}$$

Dollar-wrapped dagger tag:

$$\alpha + \beta = \gamma \tag{\dagger}$$

Inline-paragraph equation with dollar-wrapped tag. For any variables  $X_i$  and  $X_j$ , consider

$$\frac{P^{t_{X_j}}(X_i)}{P^{t_{X_i}}(X_j)} = \frac{P^t(X_i)}{P^t(X_j)}. \quad (\star)$$

Another inline-paragraph equation referencing prior tags. Combined with  $\star$ , this means

$$\frac{Q(X_i)}{Q(X_j)} = \frac{R(X_i)}{R(X_j)}. \quad (\dagger)$$

Xrefs to  $\star$  and  $\dagger$  in running text.

Another normal numbered equation (should be number 2, not 3):

$$a = b + c \quad (2)$$

## Cross-references

- Normal ref: Equation 1 should show “Equation 1”
- Tagged ref: Condition should show “Condition”
- Tagged ref: Markov should show “Markov”
- LaTeX tag ref:  $\star$  should show the star symbol
- Dollar-wrapped LaTeX tag ref:  $\star$  should show the star symbol
- Double-star tag ref:  $\star\star$  should show
- Dagger tag ref:  $\dagger$  should show  $\dagger$
- Inline equation ref:  $\star$  should show
- Inline equation ref:  $\dagger$  should show  $\dagger$
- Normal ref: Equation 2 should show “Equation 2”