

## CSS Stress Page

This page illustrates how universal math style sheet handles deep nesting patterns.

### Superscripts, Subscripts

$$2, 2^3, 2^{3^4}, 2^{3^{4^5}}, 2^{3^{4^{5^6}}}, 2^{3^{4^{5^{6^7}}}}, 2^{3^{4^{5^{6^{7^8}}}}}, 2^{3^{4^{5^{6^{7^{8^9}}}}}}} \quad (1)$$

$$A, A_B, A_{B_C}, A_{B_{C_D}}, A_{B_{C_{D_E}}}, A_{B_{C_{D_{E_F}}}}, A_{B_{C_{D_{E_{F_G}}}}} \quad (2)$$

$$A, A_B, A_B^C, A_B^{C_D}, A_B^{C_{D^E}}, A_B^{C_{D^{E_F}}}, A_B^{C_{D^{E_{F^G}}}}} \quad (3)$$

### Prescripts, subscripts and superscripts

$$A, {}_B A_C, {}_D B A_{C_E}, {}_F D B A_{C_{E_G}}, {}_H F D B A_{C_{E_{G_I}}} \quad (4)$$

$$A, {}_B A^C, {}_D B A^{C^E}, {}_F D B A^{C^{E^G}}, {}_H F D B A^{C^{E^{G^I}}} \quad (5)$$

$$A, {}_B A^C, {}_D B A^{C^E}, {}_F D B A^{C^{E^G}}, {}_H F D B A^{C^{E^{G^I}}} \quad (6)$$

$$A, {}_B A_C, {}_D B A_{C_E}, {}_F D B A_{C_{E_G}}, {}_H F D B A_{C_{E_{G_I}}} \quad (7)$$

$$A, {}_B A_C, {}_D B A_{C_E}, {}_F D B A_{C_{E_G}}, {}_H F D B A_{C_{E_{G_I}}} \quad (8)$$

$$A, {}_B A^C, {}_D B A^{C^E}, {}_F D B A^{C^{E^G}}, {}_H F D B A^{C^{E^{G^I}}} \quad (9)$$

## Stacked indices

$$A, A^B_C, A^{B^D}_{C^E}, A^{B^D E^J K^L}_{C^F M^N O^P}, A^{B^D H^I E^J K^L F^M N^O P^Q R^S T^U V^W X^Y Z^A N^B C^D E^O}$$
(10)

## Fractions

$$A + \frac{B}{C} + \frac{B}{C + \frac{D}{E}} + \frac{B}{C + \frac{D}{E + \frac{F}{G}}}$$
(11)

$$A + \frac{B}{C} + \frac{B + \frac{D}{E}}{C} + \frac{B + \frac{D + \frac{F}{G}}{E}}{C}$$
(12)

$$\frac{B}{C} + \frac{B + \frac{D}{E}}{C} + \frac{B + \frac{D + \frac{F}{G}}{E}}{C} + \frac{B}{C + \frac{D}{E + \frac{F}{G}}}$$
(13)

$$A + \frac{B}{C} + \frac{B + \frac{D}{E}}{C + \frac{F}{G}} + \frac{B + \frac{D + \frac{H}{I}}{J}}{C + \frac{F + \frac{L}{M}}{G + \frac{N}{O}}} \quad (14)$$

Fractions and indices

$$A_2^1 + \frac{B_2^1}{C_2^1} + \frac{B_2^2 + \frac{D_2^1}{E_2^1}}{C_2^2 + \frac{F_2^1}{G_2^1}} + \frac{B_2^3 + \frac{D_2^2 + \frac{H_2^1}{I_2^1}}{J_2^1}}{C_2^3 + \frac{F_2^2 + \frac{L_2^1}{M_2^1}}{G_2^2 + \frac{N_2^1}{O_2^1}}} \quad (15)$$

$$A, A^{1 + \frac{B}{C}}, A^{B^{1 + \frac{C}{D}}}, A^{B^{C^{1 + \frac{D}{E}}}}, A^{B^{C^{D^{1 + \frac{E}{F}}}}} \quad (16)$$



## Over and Under Scripts with Braces

$$\overbrace{\text{Expression Expression}}^{\text{over brace}} \quad \underbrace{\text{Expression}}_{\text{under brace}} \quad (21)$$

$$\overbrace{\overbrace{\text{Expression Expression}}^{\text{over brace}}}^{\text{over brace}} \quad \underbrace{\text{Expression}}_{\text{under brace}} \quad (22)$$

## Cases

$$F(x) = \begin{cases} \sin^4(12x^2) & \text{if } x > 0 \\ \sin^3(x) & \text{otherwise} \end{cases} \quad (23)$$

$$G(x) = \begin{cases} 1 + x^2 & \text{if } x > 1 \\ 1 + x^4 & \text{if } x < 0 \\ 1 + x^3 & \text{otherwise} \end{cases} \quad (24)$$

## Matrices, Determinants and Vectors

$$\begin{bmatrix} A_{11} & A_{12} & A_{13} & A_{14} \\ A_{21} & A_{22} & A_{23} & A_{24} \\ A_{31} & A_{32} & A_{33} & A_{34} \\ A_{41} & A_{42} & A_{43} & A_{44} \end{bmatrix} \begin{bmatrix} X_1 \\ X_2 \\ X_3 \\ X_4 \end{bmatrix} = \begin{bmatrix} B_1 \\ B_2 \\ B_3 \\ B_4 \end{bmatrix} \quad (25)$$

$$\det \begin{vmatrix} A + B & C + D + E & F \\ G & H + I & J + K \\ L + M + N & O + P & Q \end{vmatrix} \quad (26)$$

$$\left[ \left[ \begin{matrix} A & B \\ C & D \\ E & 0 \\ 0 & F \\ G & 0 \\ 0 & H \end{matrix} \right] \left[ \begin{matrix} 0 \\ 0 \\ 0 \\ \begin{matrix} P & Q \\ R & S \end{matrix} \\ 0 \end{matrix} \right] \left[ \begin{matrix} 0 \\ \begin{matrix} K & L \\ M & N \end{matrix} \\ 0 \end{matrix} \right] \right] \quad (27)$$

Fences

$$\left[ \left[ \left[ \left[ \text{BRACKETS} \right] \right] \right] \right] \quad (28)$$

$$\left[ \text{BRACKET MARKERS} \right] \begin{matrix} \text{Top Marker} \\ \text{Bottom One} \end{matrix} \quad (29)$$

Radicals

$$\sqrt{\sqrt{A + B}}, \sqrt{\sqrt{A + \sqrt{B}}}, \sqrt{\sqrt{A + \sqrt{B + \sqrt{C}}}} \quad (30)$$