mdbch-m XCharter-TLF-m XCharter-TLF-m

Default: $a\alpha b\beta G\Gamma P\Pi \alpha\beta$ mathnormal: $a\alpha b\beta G\Gamma P\Pi$ mathrm: $a\alpha \alpha b\beta G\Gamma P\Pi$ mathup: $a\alpha \alpha b\beta G\Gamma P\Pi$ mathit: $a\alpha b\beta G\Gamma P\Pi$ mathbf: $a\alpha b\beta G\Gamma P\Pi$ mathbf: $a\alpha b\beta G\Gamma P\Pi$

Default: $a\alpha b\beta G\Gamma P\Pi$ mathnormal: $a\alpha b\beta G\Gamma P\Pi$ mathrm: $a\alpha b\beta G\Gamma P\Pi$ mathup: $a\alpha b\beta G\Gamma P\Pi$ mathit: $a\alpha b\beta G\Gamma P\Pi$ mathbf: $a\alpha b\beta G\Gamma P\Pi$ mathbfit: $a\alpha b\beta G\Gamma P\Pi$

Default: ααbβGΓΡΠ mathnormal: ααbβGΓΡΠ mathrm: ααbβGΓΡΠ mathup: ααbβGΓΡΠ mathit: ααbβGΓΡΠ mathbf: ααbβGΓΡΠ mathbf: ααbβGΓΡΠ

1 Formulas

α, β, γ, δ, ε, ζ, η, θ, ι, κ, λ, μ, ν, ξ, ο, π, ρ, σ, ς, τ, υ, φ, χ, ψ, ω, ε, Α, Β, Γ, Δ, Ε, Z, H, Θ, I, K, Λ, M, N, Ξ, Ο, Π, P, Σ, T, Υ, Φ, X, Ψ, Ω, F, α, β, γ, δ, ε, ζ, η, θ, ι, κ, λ, μ, ν, ξ, ο, π, ρ, σ, ς, τ, υ, φ, χ, ψ, ω, ε, Α, Β, Γ, Δ, Ε, Z, H, Θ, I, K, Λ, M, N, Ξ, Ο, Π, P, Σ, T, Υ, Φ, X, Ψ, Ω, F, α, β, γ, δ, ε, ζ, η, θ, ι, κ, λ, μ, ν, ξ, ο, π, ρ, σ, ς, τ, υ, φ, χ, ψ, ω, ε, Α, Β, Γ, Δ, Ε, Z, H, Θ, I, K, Λ, M, N, Ξ, Ο, Π, P, Σ, T, Υ, Φ, X, Ψ, Ω, F, α, β, γ, δ, ε, ζ, η, θ, ι, κ, λ, μ, ν, ξ, ο, π, ρ, σ, ς, τ, υ, φ, χ, ψ, ω, ε, Α, Β, Γ, Δ, Ε, Z, H, Θ, I, K, Λ, M, N, Ξ, Ο, Π, P, Σ, T, Υ, Φ, X, Ψ, Ω, F, αα > 0, βb + (3 × 27), ΓG = 7 < 8, λ αα > 0, βb + (3 × 27), ΓG = 7 < 8, λ s ± 3γ + γ - 1 = 4 × 7

$$\sum_{i=0}^{N} x^{i}$$

$$\int_{-\infty}^{\infty} x f(x) dx = \left(\frac{27}{2}\right)$$

 $s\pm 3\gamma+y-1\times 7$

$$\sum_{i=0}^{N} x^{i}$$

$$\int_{-\infty}^{\infty} x f(x) dx = \left(\frac{27}{2}\right)$$

 $s \pm 3\gamma + y - 1 \times 7$

$$\sum_{i=0}^{N} x^{i}$$

$$\int_{-\infty}^{\infty} x f(x) dx = \left(\frac{27}{2}\right)$$

 $s \pm 3\gamma + y - 1 \times 7$

$$\sum_{i=0}^{N} x^{i}$$

$$\int_{-\infty}^{\infty} x f(x) dx = \left(\frac{27}{2}\right)$$

2 Math Alphabets

Default

$$0,1,2,3,4,5,6,7,8,9,$$

$$A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,T,U,V,W,X,Y,Z,$$

$$a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z,$$

$$A,B,\Gamma,\Delta,E,Z,H,\Theta,I,K,\Lambda,M,N,\Xi,O,\Pi,P,\Sigma,T,\Upsilon,\Phi,X,\Psi,\Omega,$$

$$\alpha,\beta,\gamma,\delta,\epsilon,\zeta,\eta,\theta,\iota,\kappa,\lambda,\mu,\nu,\xi,o,\pi,\rho,\sigma,\tau,\upsilon,\phi,\chi,\psi,\omega,\epsilon,\vartheta,\varpi,\varrho,\varsigma,\varphi,$$

```
Math Normal (\mathnormal)
                                             0, 1, 2, 3, 4, 5, 6, 7, 8, 9,
                                           A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z,
                                             a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z,
                                         A, B, \Gamma, \Delta, E, Z, H, \Theta, I, K, \Lambda, M, N, \Xi, O, \Pi, P, \Sigma, T, \Upsilon, \Phi, X, \Psi, \Omega,
                                             \alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, o, \pi, \rho, \sigma, \tau, \nu, \phi, \chi, \psi, \omega, \epsilon, \vartheta, \varpi, \varrho, \varsigma, \varphi,
Math Italic (\mathit)
                                           0, 1, 2, 3, 4, 5, 6, 7, 8, 9,
                                           A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z,
                                             a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z,\\
                                           A, B, \Gamma, \Delta, E, Z, H, \Theta, I, K, \Lambda, M, N, \Xi, O, \Pi, P, \Sigma, T, \Upsilon, \Phi, X, \Psi, \Omega,
                                             \alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, o, \pi, \rho, \sigma, \tau, \nu, \phi, \chi, \psi, \omega, \epsilon, \vartheta, \varpi, \varrho, \varsigma, \varphi,
Math Roman (\mathrm)
                                             0, 1, 2, 3, 4, 5, 6, 7, 8, 9,
                                             A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z,
                                             a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z,
                                             A, B, \Gamma, \Delta, E, Z, H, \Theta, I, K, \Lambda, M, N, \Xi, O, \Pi, P, \Sigma, T, \Upsilon, \Phi, X, \Psi, \Omega,
                                             \alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, o, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \epsilon, \vartheta, \varpi, \varrho, \varsigma, \varphi,
Math Bold (\mathbf)
                                             0, 1, 2, 3, 4, 5, 6, 7, 8, 9,
                                             A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z,
                                             a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z,
                                             A,B,\Gamma,\Delta,E,Z,H,\Theta,I,K,\Lambda,M,N,\Xi,O,\Pi,P,\Sigma,T,\Upsilon,\Phi,X,\Psi,\Omega,
                                             \alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, o, \pi, \rho, \sigma, \tau, v, \phi, \chi, \psi, \omega, \epsilon, \vartheta, \varpi, \varrho, \varsigma, \varphi,
 Calligraphic (\mathcal)
                                             \mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}, \mathcal{E}, \mathcal{F}, \mathcal{G}, \mathcal{H}, \mathcal{I}, \mathcal{J}, \mathcal{K}, \mathcal{L}, \mathcal{M}, \mathcal{N}, \mathcal{O}, \mathcal{P}, \mathcal{Q}, \mathcal{R}, \mathcal{S}, \mathcal{T}, \mathcal{U}, \mathcal{V}, \mathcal{W}, \mathcal{X}, \mathcal{Y}, \mathcal{Z}, \mathcal{C}, \mathcal{C}
 Script (\mathscr)
                                             \mathscr{A}, \mathscr{B}, \mathscr{C}, \mathscr{D}, \mathscr{E}, \mathscr{F}, \mathscr{G}, \mathscr{H}, \mathscr{I}, \mathscr{I}, \mathscr{K}, \mathscr{L}, \mathscr{M}, \mathscr{N}, \mathscr{O}, \mathscr{P}, \mathscr{Q}, \mathscr{R}, \mathscr{S}, \mathscr{T}, \mathscr{U}, \mathscr{V}, \mathscr{W}, \mathscr{X}, \mathscr{Y}, \mathscr{Z}, \mathscr{Y}, \mathscr{Z}, \mathscr{Y}, \mathscr{Z}, \mathscr{Y}, \mathscr{Y}
 Fraktur (\mathfrak)
                                             \mathfrak{A}, \mathfrak{B}, \mathfrak{C}, \mathfrak{D}, \mathfrak{E}, \mathfrak{F}, \mathfrak{G}, \mathfrak{H}, \mathfrak{I}, \mathfrak{I}, \mathfrak{K}, \mathfrak{L}, \mathfrak{M}, \mathfrak{N}, \mathfrak{D}, \mathfrak{P}, \mathfrak{Q}, \mathfrak{R}, \mathfrak{S}, \mathfrak{T}, \mathfrak{U}, \mathfrak{V}, \mathfrak{W}, \mathfrak{X}, \mathfrak{Y}, \mathfrak{Z}, \mathfrak{Z}
                                             a, b, c, d, e, f, g, h, i, j, t, l, m, n, o, p, q, r, s, t, u, v, w, r, h, z,
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 $\mathbb{A},\mathbb{B},\mathbb{C},\mathbb{D},\mathbb{E},\mathbb{F},\mathbb{G},\mathbb{H},\mathbb{I},\mathbb{J},\mathbb{K},\mathbb{L},\mathbb{M},\mathbb{N},\mathbb{O},\mathbb{P},\mathbb{Q},\mathbb{R},\mathbb{S},\mathbb{T},\mathbb{U},\mathbb{V},\mathbb{W},\mathbb{X},\mathbb{Y},\mathbb{Z},$

Blackboard Bold (\mathbb)

3 Character Sidebearings

Default

$$\begin{split} |A| + |B| + |C| + |D| + |E| + |F| + |G| + |H| + |I| + |J| + |K| + |L| + |M| + \\ |N| + |O| + |P| + |Q| + |R| + |S| + |T| + |U| + |V| + |W| + |X| + |Y| + |Z| + \\ |a| + |b| + |c| + |d| + |e| + |f| + |g| + |h| + |i| + |j| + |k| + |l| + |m| + \\ |n| + |o| + |p| + |q| + |r| + |s| + |t| + |u| + |v| + |w| + |x| + |y| + |z| + \\ |A| + |B| + |\Gamma| + |\Delta| + |E| + |Z| + |H| + |\Theta| + |I| + |K| + |\Lambda| + |M| + \\ |N| + |E| + |O| + |\Pi| + |P| + |E| + |T| + |T| + |\Phi| + |X| + |\Psi| + |\Omega| + \\ |a| + |\beta| + |\gamma| + |\delta| + |\epsilon| + |\zeta| + |\eta| + |\theta| + |\iota| + |\kappa| + |\lambda| + |\mu| + \\ |v| + |\xi| + |o| + |\pi| + |\rho| + |\sigma| + |\tau| + |v| + |\phi| + |\chi| + |\psi| + |\omega| + \\ |\varepsilon| + |\vartheta| + |\varpi| + |\varphi| + |\varsigma| + |\varphi| + \end{split}$$

Math Roman (\mathrm)

$$\begin{split} |A| + |B| + |C| + |D| + |E| + |F| + |G| + |H| + |I| + |J| + |K| + |L| + |M| + \\ |N| + |O| + |P| + |Q| + |R| + |S| + |T| + |U| + |V| + |W| + |X| + |Y| + |Z| + \\ |a| + |b| + |c| + |d| + |e| + |f| + |g| + |h| + |i| + |j| + |k| + |I| + |m| + \\ |n| + |o| + |p| + |q| + |r| + |s| + |t| + |u| + |v| + |w| + |x| + |y| + |z| + \\ |A| + |B| + |\Gamma| + |\Delta| + |E| + |Z| + |H| + |\Theta| + |I| + |K| + |\Lambda| + |M| + \\ |N| + |\Xi| + |O| + |\Pi| + |P| + |\Sigma| + |T| + |\Upsilon| + |\Phi| + |X| + |\Psi| + |\Omega| + \\ \end{split}$$

Math Bold (\mathbf)

$$\begin{split} |A| + |B| + |C| + |D| + |E| + |F| + |G| + |H| + |I| + |J| + |K| + |L| + |M| + \\ |N| + |O| + |P| + |Q| + |R| + |S| + |T| + |U| + |V| + |W| + |X| + |Y| + |Z| + \\ |a| + |b| + |c| + |d| + |e| + |f| + |g| + |h| + |i| + |j| + |k| + |I| + |m| + \\ |n| + |o| + |p| + |q| + |r| + |s| + |t| + |u| + |v| + |w| + |x| + |y| + |z| + \\ |A| + |B| + |\Gamma| + |\Delta| + |E| + |Z| + |H| + |\Theta| + |I| + |K| + |A| + |M| + \\ |N| + |\Xi| + |O| + |\Pi| + |P| + |\Sigma| + |T| + |\Upsilon| + |\Phi| + |X| + |\Psi| + |\Omega| + \end{split}$$

Math Calligraphic (\mathcal)

$$\begin{aligned} |\mathcal{A}| + |\mathcal{B}| + |\mathcal{C}| + |\mathcal{D}| + |\mathcal{E}| + |\mathcal{F}| + |\mathcal{G}| + |\mathcal{H}| + |\mathcal{I}| + |\mathcal{I}| + |\mathcal{K}| + |\mathcal{L}| + |\mathcal{M}| + \\ |\mathcal{N}| + |\mathcal{O}| + |\mathcal{P}| + |\mathcal{Q}| + |\mathcal{R}| + |\mathcal{S}| + |\mathcal{T}| + |\mathcal{U}| + |\mathcal{V}| + |\mathcal{W}| + |\mathcal{X}| + |\mathcal{Y}| + |\mathcal{Z}| + \end{aligned}$$

4 Superscript positioning

Default

$$\begin{split} A^2 + B^2 + C^2 + D^2 + E^2 + F^2 + G^2 + H^2 + I^2 + J^2 + K^2 + L^2 + M^2 + \\ N^2 + O^2 + P^2 + Q^2 + R^2 + S^2 + T^2 + U^2 + V^2 + W^2 + X^2 + Y^2 + Z^2 + \\ a^2 + b^2 + c^2 + d^2 + e^2 + f^2 + g^2 + h^2 + i^2 + j^2 + k^2 + l^2 + m^2 + \\ n^2 + o^2 + p^2 + q^2 + r^2 + s^2 + t^2 + u^2 + v^2 + w^2 + x^2 + y^2 + z^2 + \\ A^2 + B^2 + \Gamma^2 + \Delta^2 + E^2 + Z^2 + H^2 + \Theta^2 + I^2 + K^2 + \Lambda^2 + M^2 + \\ N^2 + \Xi^2 + O^2 + \Pi^2 + P^2 + \Sigma^2 + T^2 + \Upsilon^2 + \Phi^2 + X^2 + \Psi^2 + \Omega^2 + \\ \alpha^2 + \beta^2 + \gamma^2 + \delta^2 + \epsilon^2 + \zeta^2 + \eta^2 + \theta^2 + \iota^2 + \kappa^2 + \lambda^2 + \mu^2 + \\ v^2 + \xi^2 + o^2 + \pi^2 + \rho^2 + \sigma^2 + \tau^2 + v^2 + \phi^2 + \chi^2 + \psi^2 + \omega^2 + \\ \varepsilon^2 + \vartheta^2 + \varpi^2 + \varrho^2 + \varsigma^2 + \varphi^2 + \end{split}$$

Math Roman (\mathrm)

$$A^{2} + B^{2} + C^{2} + D^{2} + E^{2} + F^{2} + G^{2} + H^{2} + I^{2} + J^{2} + K^{2} + L^{2} + M^{2} + N^{2} + O^{2} + P^{2} + Q^{2} + R^{2} + S^{2} + T^{2} + U^{2} + V^{2} + W^{2} + X^{2} + Y^{2} + Z^{2} + a^{2} + b^{2} + c^{2} + d^{2} + e^{2} + f^{2} + g^{2} + h^{2} + i^{2} + j^{2} + k^{2} + l^{2} + m^{2} + n^{2} + o^{2} + p^{2} + q^{2} + r^{2} + s^{2} + t^{2} + u^{2} + v^{2} + w^{2} + x^{2} + y^{2} + z^{2} + A^{2} + B^{2} + \Gamma^{2} + \Delta^{2} + E^{2} + Z^{2} + H^{2} + \Theta^{2} + I^{2} + K^{2} + \Lambda^{2} + M^{2} + N^{2} + \Xi^{2} + O^{2} + \Pi^{2} + P^{2} + \Sigma^{2} + T^{2} + \Upsilon^{2} + \Phi^{2} + X^{2} + \Psi^{2} + \Omega^{2} + \Omega^{2$$

Math Bold (\mathbf)

$$\begin{split} &A^2+B^2+C^2+D^2+E^2+F^2+G^2+H^2+I^2+J^2+K^2+L^2+M^2+\\ &N^2+O^2+P^2+Q^2+R^2+S^2+T^2+U^2+V^2+W^2+X^2+Y^2+Z^2+\\ &a^2+b^2+c^2+d^2+e^2+f^2+g^2+h^2+i^2+j^2+k^2+l^2+m^2+\\ &n^2+o^2+p^2+q^2+r^2+s^2+t^2+u^2+v^2+w^2+x^2+y^2+z^2+\\ &A^2+B^2+\Gamma^2+\Delta^2+E^2+Z^2+H^2+\Theta^2+I^2+K^2+\Lambda^2+M^2+\\ &N^2+\Xi^2+O^2+\Pi^2+P^2+\Sigma^2+T^2+\Upsilon^2+\Phi^2+X^2+\Psi^2+\Omega^2+\\ \end{split}$$

Math Calligraphic (\mathcal)

$$A^{2} + B^{2} + C^{2} + D^{2} + \mathcal{E}^{2} + \mathcal{F}^{2} + \mathcal{G}^{2} + \mathcal{H}^{2} + \mathcal{I}^{2} + \mathcal{J}^{2} + \mathcal{K}^{2} + \mathcal{L}^{2} + \mathcal{M}^{2} + \mathcal{N}^{2} + \mathcal{O}^{2} + \mathcal{P}^{2} + \mathcal{O}^{2} + \mathcal{R}^{2} + \mathcal{S}^{2} + \mathcal{T}^{2} + \mathcal{U}^{2} + \mathcal{V}^{2} + \mathcal{V}^{2} + \mathcal{X}^{2} + \mathcal{V}^{2} + \mathcal{Z}^{2} + \mathcal{D}^{2} +$$

5 Subscript positioning

Default

$$\begin{split} A_i + B_i + C_i + D_i + E_i + F_i + G_i + H_i + I_i + J_i + K_i + L_i + M_i + \\ N_i + O_i + P_i + Q_i + R_i + S_i + T_i + U_i + V_i + W_i + X_i + Y_i + Z_i + \\ a_i + b_i + c_i + d_i + e_i + f_i + g_i + h_i + i_i + j_i + k_i + l_i + m_i + \\ n_i + o_i + p_i + q_i + r_i + s_i + t_i + u_i + v_i + w_i + x_i + y_i + z_i + \\ A_i + B_i + \Gamma_i + \Delta_i + E_i + Z_i + H_i + \Theta_i + I_i + K_i + \Lambda_i + M_i + \\ N_i + \Xi_i + O_i + \Pi_i + P_i + \Sigma_i + T_i + \Upsilon_i + \Phi_i + X_i + \Psi_i + \Omega_i + \\ \alpha_i + \beta_i + \gamma_i + \delta_i + \epsilon_i + \zeta_i + \eta_i + \theta_i + \iota_i + \kappa_i + \lambda_i + \mu_i + \\ v_i + \xi_i + o_i + \pi_i + \rho_i + \sigma_i + \tau_i + v_i + \phi_i + \chi_i + \psi_i + \omega_i + \\ \varepsilon_i + \vartheta_i + \varpi_i + \varrho_i + \zeta_i + \varphi_i + \end{split}$$

Math Roman (\mathrm)

$$\begin{split} \mathbf{A}_{i} + \mathbf{B}_{i} + \mathbf{C}_{i} + \mathbf{D}_{i} + \mathbf{E}_{i} + \mathbf{F}_{i} + \mathbf{G}_{i} + \mathbf{H}_{i} + \mathbf{I}_{i} + \mathbf{J}_{i} + \mathbf{K}_{i} + \mathbf{L}_{i} + \mathbf{M}_{i} + \\ \mathbf{N}_{i} + \mathbf{O}_{i} + \mathbf{P}_{i} + \mathbf{Q}_{i} + \mathbf{R}_{i} + \mathbf{S}_{i} + \mathbf{T}_{i} + \mathbf{U}_{i} + \mathbf{V}_{i} + \mathbf{W}_{i} + \mathbf{X}_{i} + \mathbf{Y}_{i} + \mathbf{Z}_{i} + \\ \mathbf{a}_{i} + \mathbf{b}_{i} + \mathbf{c}_{i} + \mathbf{d}_{i} + \mathbf{e}_{i} + \mathbf{f}_{i} + \mathbf{g}_{i} + \mathbf{h}_{i} + \mathbf{i}_{i} + \mathbf{j}_{i} + \mathbf{k}_{i} + \mathbf{I}_{i} + \mathbf{m}_{i} + \\ \mathbf{n}_{i} + \mathbf{o}_{i} + \mathbf{p}_{i} + \mathbf{q}_{i} + \mathbf{r}_{i} + \mathbf{s}_{i} + \mathbf{t}_{i} + \mathbf{u}_{i} + \mathbf{v}_{i} + \mathbf{w}_{i} + \mathbf{x}_{i} + \mathbf{y}_{i} + \mathbf{z}_{i} + \\ \mathbf{A}_{i} + \mathbf{B}_{i} + \mathbf{\Gamma}_{i} + \Delta_{i} + \mathbf{E}_{i} + \mathbf{Z}_{i} + \mathbf{H}_{i} + \mathbf{\Theta}_{i} + \mathbf{I}_{i} + \mathbf{K}_{i} + \mathbf{\Lambda}_{i} + \mathbf{M}_{i} + \\ \mathbf{N}_{i} + \mathbf{\Xi}_{i} + \mathbf{O}_{i} + \mathbf{\Pi}_{i} + \mathbf{P}_{i} + \mathbf{\Sigma}_{i} + \mathbf{T}_{i} + \mathbf{\Upsilon}_{i} + \mathbf{\Phi}_{i} + \mathbf{X}_{i} + \mathbf{\Psi}_{i} + \mathbf{\Omega}_{i} + \end{split}$$

Math Bold (\mathbf)

$$\begin{aligned} &\mathbf{A}_{i} + \mathbf{B}_{i} + \mathbf{C}_{i} + \mathbf{D}_{i} + \mathbf{E}_{i} + \mathbf{F}_{i} + \mathbf{G}_{i} + \mathbf{H}_{i} + \mathbf{I}_{i} + \mathbf{J}_{i} + \mathbf{K}_{i} + \mathbf{L}_{i} + \mathbf{M}_{i} + \\ &\mathbf{N}_{i} + \mathbf{O}_{i} + \mathbf{P}_{i} + \mathbf{Q}_{i} + \mathbf{R}_{i} + \mathbf{S}_{i} + \mathbf{T}_{i} + \mathbf{U}_{i} + \mathbf{V}_{i} + \mathbf{W}_{i} + \mathbf{X}_{i} + \mathbf{Y}_{i} + \mathbf{Z}_{i} + \\ &\mathbf{a}_{i} + \mathbf{b}_{i} + \mathbf{c}_{i} + \mathbf{d}_{i} + \mathbf{e}_{i} + \mathbf{f}_{i} + \mathbf{g}_{i} + \mathbf{h}_{i} + \mathbf{i}_{i} + \mathbf{j}_{i} + \mathbf{k}_{i} + \mathbf{l}_{i} + \mathbf{m}_{i} + \\ &\mathbf{n}_{i} + \mathbf{o}_{i} + \mathbf{p}_{i} + \mathbf{q}_{i} + \mathbf{r}_{i} + \mathbf{s}_{i} + \mathbf{t}_{i} + \mathbf{u}_{i} + \mathbf{v}_{i} + \mathbf{w}_{i} + \mathbf{x}_{i} + \mathbf{y}_{i} + \mathbf{z}_{i} + \\ &\mathbf{A}_{i} + \mathbf{B}_{i} + \mathbf{\Gamma}_{i} + \mathbf{\Delta}_{i} + \mathbf{E}_{i} + \mathbf{Z}_{i} + \mathbf{H}_{i} + \mathbf{\Theta}_{i} + \mathbf{I}_{i} + \mathbf{K}_{i} + \mathbf{\Lambda}_{i} + \mathbf{M}_{i} + \\ &\mathbf{N}_{i} + \mathbf{\Xi}_{i} + \mathbf{O}_{i} + \mathbf{\Pi}_{i} + \mathbf{P}_{i} + \mathbf{\Sigma}_{i} + \mathbf{T}_{i} + \mathbf{\Upsilon}_{i} + \mathbf{\Phi}_{i} + \mathbf{X}_{i} + \mathbf{\Psi}_{i} + \mathbf{\Omega}_{i} + \end{aligned}$$

Math Calligraphic (\mathcal)

$$\begin{aligned} \mathcal{A}_i + \mathcal{B}_i + \mathcal{C}_i + \mathcal{D}_i + \mathcal{E}_i + \mathcal{F}_i + \mathcal{G}_i + \mathcal{H}_i + \mathcal{I}_i + \mathcal{J}_i + \mathcal{K}_i + \mathcal{L}_i + \mathcal{M}_i + \\ \mathcal{N}_i + \mathcal{O}_i + \mathcal{P}_i + \mathcal{Q}_i + \mathcal{R}_i + \mathcal{S}_i + \mathcal{T}_i + \mathcal{U}_i + \mathcal{V}_i + \mathcal{W}_i + \mathcal{X}_i + \mathcal{Y}_i + \mathcal{Z}_i + \end{aligned}$$

6 Accent positioning

Default

Math Italic (\mathit)

Math Roman (\mathrm)

$$\hat{0} + \hat{1} + \hat{2} + \hat{3} + \hat{4} + \hat{5} + \hat{6} + \hat{7} + \hat{8} + \hat{9} + \\ \hat{A} + \hat{B} + \hat{C} + \hat{D} + \hat{E} + \hat{F} + \hat{G} + \hat{H} + \hat{I} + \hat{J} + \hat{K} + \hat{L} + \hat{M} + \\ \hat{N} + \hat{O} + \hat{P} + \hat{Q} + \hat{R} + \hat{S} + \hat{T} + \hat{U} + \hat{V} + \hat{W} + \hat{X} + \hat{Y} + \hat{Z} + \\ \hat{a} + \hat{b} + \hat{c} + \hat{d} + \hat{e} + \hat{f} + \hat{g} + \hat{h} + \hat{i} + \hat{j} + \hat{k} + \hat{I} + \hat{m} + \\ \hat{n} + \hat{o} + \hat{p} + \hat{q} + \hat{r} + \hat{s} + \hat{t} + \hat{u} + \hat{v} + \hat{w} + \hat{x} + \hat{y} + \hat{z} + \\ \hat{A} + \hat{B} + \hat{\Gamma} + \hat{\Delta} + \hat{E} + \hat{Z} + \hat{H} + \hat{\Theta} + \hat{I} + \hat{K} + \hat{\Lambda} + \hat{M} + \\ \hat{N} + \hat{\Xi} + \hat{O} + \hat{\Pi} + \hat{P} + \hat{\Sigma} + \hat{T} + \hat{\Upsilon} + \hat{\Phi} + \hat{X} + \hat{\Psi} + \hat{\Omega} +$$

Math Bold (\mathbf)

$$\begin{split} \hat{0} + \hat{1} + \hat{2} + \hat{3} + \hat{4} + \hat{5} + \hat{6} + \hat{7} + \hat{8} + \hat{9} + \\ \hat{A} + \hat{B} + \hat{C} + \hat{D} + \hat{E} + \hat{F} + \hat{G} + \hat{H} + \hat{I} + \hat{J} + \hat{K} + \hat{L} + \hat{M} + \\ \hat{N} + \hat{O} + \hat{P} + \hat{Q} + \hat{R} + \hat{S} + \hat{T} + \hat{U} + \hat{V} + \hat{W} + \hat{X} + \hat{Y} + \hat{Z} + \\ \hat{a} + \hat{b} + \hat{c} + \hat{d} + \hat{e} + \hat{f} + \hat{g} + \hat{h} + \hat{i} + \hat{j} + \hat{k} + \hat{I} + \hat{m} + \\ \hat{n} + \hat{o} + \hat{p} + \hat{q} + \hat{r} + \hat{s} + \hat{t} + \hat{u} + \hat{v} + \hat{w} + \hat{x} + \hat{y} + \hat{z} + \\ \hat{A} + \hat{B} + \hat{\Gamma} + \hat{\Delta} + \hat{E} + \hat{Z} + \hat{H} + \hat{\Theta} + \hat{I} + \hat{K} + \hat{\Lambda} + \hat{M} + \\ \hat{N} + \hat{\Xi} + \hat{O} + \hat{\Pi} + \hat{P} + \hat{\Sigma} + \hat{T} + \hat{\Upsilon} + \hat{\Phi} + \hat{X} + \hat{\Psi} + \hat{\Omega} + \end{split}$$

Math Calligraphic (\mathcal)

$$\hat{\mathcal{A}} + \hat{\mathcal{B}} + \hat{\mathcal{C}} + \hat{\mathcal{D}} + \hat{\mathcal{E}} + \hat{\mathcal{F}} + \hat{\mathcal{G}} + \hat{\mathcal{H}} + \hat{\mathcal{I}} + \hat{\mathcal{J}} + \hat{\mathcal{K}} + \hat{\mathcal{L}} + \hat{\mathcal{M}} + \hat{\mathcal{N}} + \hat{\mathcal{O}} + \hat{\mathcal{P}} + \hat{\mathcal{O}} + \hat{\mathcal{P}} + \hat{\mathcal{O}} + \hat{\mathcal{R}} + \hat{\mathcal{S}} + \hat{\mathcal{T}} + \hat{\mathcal{U}} + \hat{\mathcal{V}} + \hat{\mathcal{W}} + \hat{\mathcal{X}} + \hat{\mathcal{V}} + \hat{\mathcal{Z}} + \hat{\mathcal{C}}$$

7 Differentials

```
\begin{aligned} \mathrm{d}A + \mathrm{d}B + \mathrm{d}C + \mathrm{d}D + \mathrm{d}E + \mathrm{d}F + \mathrm{d}G + \mathrm{d}H + \mathrm{d}I + \mathrm{d}J + \mathrm{d}K + \mathrm{d}L + \mathrm{d}M + \\ \mathrm{d}N + \mathrm{d}O + \mathrm{d}P + \mathrm{d}Q + \mathrm{d}R + \mathrm{d}S + \mathrm{d}T + \mathrm{d}U + \mathrm{d}V + \mathrm{d}W + \mathrm{d}X + \mathrm{d}Y + \mathrm{d}Z + \\ \mathrm{d}a + \mathrm{d}b + \mathrm{d}c + \mathrm{d}d + \mathrm{d}e + \mathrm{d}f + \mathrm{d}g + \mathrm{d}h + \mathrm{d}i + \mathrm{d}j + \mathrm{d}k + \mathrm{d}l + \mathrm{d}m + \\ \mathrm{d}n + \mathrm{d}o + \mathrm{d}p + \mathrm{d}q + \mathrm{d}r + \mathrm{d}s + \mathrm{d}t + \mathrm{d}u + \mathrm{d}v + \mathrm{d}w + \mathrm{d}x + \mathrm{d}y + \mathrm{d}z + \\ \mathrm{d}A + \mathrm{d}B + \mathrm{d}\Gamma + \mathrm{d}\Delta + \mathrm{d}E + \mathrm{d}Z + \mathrm{d}H + \mathrm{d}\Theta + \mathrm{d}I + \mathrm{d}K + \mathrm{d}\Lambda + \mathrm{d}M + \\ \mathrm{d}N + \mathrm{d}\Xi + \mathrm{d}O + \mathrm{d}\Pi + \mathrm{d}P + \mathrm{d}\Sigma + \mathrm{d}T + \mathrm{d}\Upsilon + \mathrm{d}\Phi + \mathrm{d}X + \mathrm{d}\Psi + \mathrm{d}\Omega + \\ \mathrm{d}\alpha + \mathrm{d}\beta + \mathrm{d}\gamma + \mathrm{d}\delta + \mathrm{d}\epsilon + \mathrm{d}\zeta + \mathrm{d}\eta + \mathrm{d}\theta + \mathrm{d}\iota + \mathrm{d}\kappa + \mathrm{d}\lambda + \mathrm{d}\mu + \\ \mathrm{d}v + \mathrm{d}\xi + \mathrm{d}o + \mathrm{d}\pi + \mathrm{d}\rho + \mathrm{d}\sigma + \mathrm{d}\tau + \mathrm{d}v + \mathrm{d}\phi + \mathrm{d}\chi + \mathrm{d}\psi + \mathrm{d}\omega + \\ \mathrm{d}\varepsilon + \mathrm{d}\vartheta + \mathrm{d}\varpi + \mathrm{d}\varrho + \mathrm{d}\zeta + \mathrm{d}\Psi + \mathrm{d}\Omega + \mathrm{d}\Pi + \mathrm{d}\Theta + \mathrm{d}I + \mathrm{d}K + \mathrm{d}\Lambda + \mathrm{d}M + \\ \mathrm{d}\Lambda + \mathrm{d}\Lambda +
```

```
\begin{split} \partial A + \partial B + \partial C + \partial D + \partial E + \partial F + \partial G + \partial H + \partial I + \partial J + \partial K + \partial L + \partial M + \\ \partial N + \partial O + \partial P + \partial Q + \partial R + \partial S + \partial T + \partial U + \partial V + \partial W + \partial X + \partial Y + \partial Z + \\ \partial a + \partial b + \partial c + \partial d + \partial e + \partial f + \partial g + \partial h + \partial i + \partial j + \partial k + \partial l + \partial m + \\ \partial n + \partial o + \partial P + \partial q + \partial r + \partial s + \partial t + \partial u + \partial v + \partial w + \partial x + \partial y + \partial z + \\ \partial A + \partial B + \partial \Gamma + \partial \Delta + \partial E + \partial Z + \partial H + \partial \Theta + \partial I + \partial K + \partial \Lambda + \partial M + \\ \partial N + \partial \Xi + \partial O + \partial \Pi + \partial P + \partial \Sigma + \partial T + \partial \Upsilon + \partial \Phi + \partial X + \partial \Psi + \partial \Omega + \\ \partial \alpha + \partial \beta + \partial \gamma + \partial \delta + \partial \epsilon + \partial \zeta + \partial \eta + \partial \theta + \partial \iota + \partial \kappa + \partial \lambda + \partial \mu + \\ \partial v + \partial \xi + \partial o + \partial \pi + \partial \rho + \partial \sigma + \partial \tau + \partial v + \partial \phi + \partial \chi + \partial \psi + \partial \omega + \\ \partial \varepsilon + \partial \vartheta + \partial \sigma + \partial \varrho + \partial \varsigma + \partial \varphi + \\ \partial A + \partial B + \partial \Gamma + \partial \Delta + \partial E + \partial Z + \partial H + \partial \Theta + \partial I + \partial K + \partial \Lambda + \partial M + \\ \partial N + \partial \Xi + \partial O + \partial \Pi + \partial P + \partial \Sigma + \partial T + \partial \Upsilon + \partial \Phi + \partial X + \partial \Psi + \partial \Omega + \\ \partial A + \partial B + \partial \Gamma + \partial \Delta + \partial E + \partial Z + \partial H + \partial \Theta + \partial I + \partial K + \partial \Lambda + \partial M + \\ \partial N + \partial \Xi + \partial O + \partial \Pi + \partial P + \partial \Sigma + \partial T + \partial \Upsilon + \partial \Phi + \partial X + \partial \Psi + \partial \Omega + \\ \partial A + \partial B + \partial \Gamma + \partial \Delta + \partial E + \partial Z + \partial H + \partial \Theta + \partial I + \partial K + \partial \Lambda + \partial M + \\ \partial N + \partial \Xi + \partial O + \partial \Pi + \partial P + \partial \Sigma + \partial T + \partial \Upsilon + \partial \Phi + \partial X + \partial \Psi + \partial \Omega + \\ \partial A + \partial B + \partial \Gamma + \partial \Delta + \partial E + \partial Z + \partial H + \partial \Theta + \partial I + \partial K + \partial \Lambda + \partial M + \\ \partial A + \partial B + \partial \Gamma + \partial \Delta + \partial E + \partial C + \partial T + \partial \Upsilon + \partial \Phi + \partial C +
```

8 Slash kerning

 $1/A + 1/B + 1/C + 1/D + 1/E + 1/F + 1/G + 1/H + 1/I + 1/J + 1/K + 1/L + 1/M + 1/N + 1/O + 1/P + 1/Q + 1/R + 1/S + 1/T + 1/U + 1/V + 1/W + 1/X + 1/Y + 1/Z + 1/a + 1/b + 1/c + 1/d + 1/e + 1/f + 1/g + 1/h + 1/i + 1/j + 1/k + 1/l + 1/m + 1/n + 1/o + 1/p + 1/q + 1/r + 1/s + 1/t + 1/u + 1/v + 1/w + 1/x + 1/y + 1/z + 1/A + 1/B + 1/\Gamma + 1/\Delta + 1/E + 1/Z + 1/H + 1/\Theta + 1/I + 1/K + 1/\Lambda + 1/M + 1/N + 1/E + 1/O + 1/\Pi + 1/P + 1/E + 1/T + 1/T + 1/\Phi + 1/X + 1/\Psi + 1/\Omega + 1/\alpha + 1/\beta + 1/\gamma + 1/\delta + 1/\epsilon + 1/\zeta + 1/\eta + 1/\theta + 1/\iota + 1/\iota + 1/\iota + 1/\mu + 1/\iota + 1/\iota$

 $A/2 + B/2 + C/2 + D/2 + E/2 + F/2 + G/2 + H/2 + I/2 + J/2 + K/2 + L/2 + M/2 + N/2 + O/2 + P/2 + Q/2 + R/2 + S/2 + T/2 + U/2 + V/2 + W/2 + X/2 + Y/2 + Z/2 + a/2 + b/2 + c/2 + d/2 + e/2 + f/2 + g/2 + h/2 + i/2 + j/2 + k/2 + l/2 + m/2 + n/2 + o/2 + p/2 + q/2 + r/2 + s/2 + t/2 + u/2 + v/2 + w/2 + x/2 + y/2 + z/2 + A/2 + B/2 + \Gamma/2 + \Delta/2 + E/2 + Z/2 + H/2 + \Theta/2 + I/2 + K/2 + A/2 + M/2 + N/2 + E/2 + O/2 + \Pi/2 + P/2 + E/2 + T/2 + Y/2 + \Phi/2 + X/2 + \Psi/2 + \Omega/2 + a/2 + \beta/2 + \gamma/2 + \delta/2 + e/2 + \zeta/2 + \eta/2 + \theta/2 + \iota/2 + \kappa/2 + \lambda/2 + \mu/2 + v/2 + \xi/2 + o/2 + \pi/2 + \rho/2 + \sigma/2 + \tau/2 + v/2 + \phi/2 + \chi/2 + \psi/2 + \omega/2 + \varepsilon/2 + \vartheta/2 + \varpi/2 + \varrho/2 + \varepsilon/2 + \varphi/2 + \psi/2 + \psi/2 + \omega/2 + \varepsilon/2 + \vartheta/2 + \varpi/2 + \varrho/2 + \varepsilon/2 + \varphi/2 + \psi/2 + \psi/2 + \omega/2 + \psi/2 + \psi/2$

9 Big operators

$$\sum_{i=1}^{n} x^{n} \prod_{i=1}^{n} x^{n} \prod_{i=1}^{n} x^{n} \int_{i=1}^{n} x^{n} \oint_{i=1}^{n} x^{n}$$

$$\bigotimes_{i=1}^{n} x^{n} \bigoplus_{i=1}^{n} x^{n} \bigcup_{i=1}^{n} x^{n} \bigvee_{i=1}^{n} x^{n} \bigcup_{i=1}^{n} x^{n} \bigcup_{i=1}^{n} x^{n} \bigcup_{i=1}^{n} x^{n}$$

10 Radicals

$$\sqrt{x+y}$$
 $\sqrt{x^2+y^2}$ $\sqrt{x_i^2+y_j^2}$ $\sqrt{\left(\frac{\cos x}{2}\right)}$ $\sqrt{\left(\frac{\sin x}{2}\right)}$

$$\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{x+y}}}}}$$

11 Over- and underbraces

$$\widehat{x}$$
 $\widehat{x+y}$ $\widehat{x^2+y^2}$ $\widehat{x_i^2+y_j^2}$ \underbrace{x} $\underbrace{x+y}$ $\underbrace{x_i+y_j}$ $\underbrace{x_i^2+y_j^2}$

12 Normal and wide accents

 \dot{x} \ddot{x} \ddot{x} \bar{x} \bar{x}

 $\hat{x} \quad \check{x} \quad \tilde{x} \quad \acute{x} \quad \dot{x} \quad \dot{x} \quad \dot{x} \quad \ddot{x} \quad \bar{x} \quad \vec{x}$

13 Long arrows

 \longleftrightarrow \longleftrightarrow \longleftrightarrow \longleftrightarrow \longleftrightarrow

14 Left and right delimiters

 $-(f)--[f]--\lfloor f\rfloor--\lceil f\rceil--\langle f\rangle--\{f\}-$

Using \left and \right.

$$-(f)--[f]--[f]--(f)--(f)--(f)-$$

$$-)f(--)f(--/f/--\backslash f\backslash --/f\backslash --\backslash f/-$$

15 Big-g-g delimiters

16 Binary Operators

$x \pm y$	\pm	$x \cap y$	\cap	$x \diamond y$	\diamond	$x \oplus y$	\oplus
$x \mp y$	\mp	$x \cup y$	\cup	$x \triangle y$	\bigtriangleup	$x \ominus y$	\ominus
$x \times y$	\times	$x \uplus y$	\uplus	$x \nabla y$	\bigtriangledown	$x \otimes y$	\otimes
$x \div y$	\div	$x \sqcap y$	\sqcap	$x \triangleleft y$	\triangleleft	$x \oslash y$	\oslash
x * y	\ast	$x \sqcup y$	\sqcup	$x \triangleright y$	\triangleright	$x \odot y$	\odot
$x \star y$	\star	$x \lor y$	\vee	$x \triangleleft y$	\lhd	$x \bigcirc y$	\bigcirc
$x \circ y$	\circ	$x \wedge y$	\wedge	$x \triangleright y$	\rhd	$x \dagger y$	\dagger
$x \bullet y$	\bullet	$x \setminus y$	\setminus	$x \triangleleft y$	\unlhd	$x \ddagger y$	\ddagger
$x \cdot y$	\cdot	$x \wr y$	\wr	$x \trianglerighteq y$	\unrhd	x§ y	\ S
x + y	+	x - y	_	$x \coprod y$	\amalg	$x^{\P}y$	\P

17 Relations

```
\leq
                                                                    \equiv
                                                                                 x \models y
                                                                                           \models
x \le y
                            x \ge y
                                       \geq
                                                         x \equiv y
x \prec y
          \prec
                            x \succ y
                                       \succ
                                                          x \sim y
                                                                    \sim
                                                                                 x \perp y
                                                                                           \perp
                                                                                           \mid
x \leq y
          \preceq
                                       \succeq
                                                                    \simeq
                                                                                 x \mid y
                            x \succeq y
                                                          x \simeq y
x \ll y
         \11
                            x \gg y
                                     \gg
                                                         x \simeq y
                                                                    \asymp
                                                                                 x \parallel y
                                                                                           \parallel
                                                                    \approx
                                                                                           \bowtie
x \subset y
          \subset
                            x \supset y
                                       \supset
                                                         x \approx y
                                                                                 x \bowtie y
x \subseteq y
                            x \supseteq y
                                                          x \cong y
                                                                    \cong
          \subseteq
                                       \supseteq
                                                                                 x \bowtie y
                                                                                           \Join
          \sqsubset
                                       \sqsupset
                                                                    \neq
                                                                                           \smile
x \sqsubset y
                            x \supset y
                                                          x \neq y
                                                                                 x \smile y
x \sqsubseteq y
          \sqsubseteq x \supseteq y
                                       \sqsupseteq x \doteq y
                                                                    \doteq
                                                                                 x \frown y
                                                                                           \frown
                            x \ni y
x \in y
          \in
                                       \ni
                                                          x \propto y
                                                                    \propto
                                                                                 x = y
                            x \dashv y
x \vdash y
          \vdash
                                       \dashv
                                                         x < y
                                                                                 x > y
                                                                                           >
x:y
```

18 Punctuation

$$x,y$$
 , $x;y$; $x:y$ \colon $x.y$ \ldotp $x\cdot y$ \cdotp

19 Arrows

$x \leftarrow y$	\leftarrow	$x \leftarrow\!$	\longleftarrow	$x \uparrow y$	\uparrow
$x \Leftarrow y$	\Leftarrow	$x \longleftarrow y$	\Longleftarrow	$x \uparrow y$	\Uparrow
$x \rightarrow y$	\rightarrow	$x \longrightarrow y$	\longrightarrow	$x \downarrow y$	\downarrow
$x \Rightarrow y$	\Rightarrow	$x \Longrightarrow y$	\Longrightarrow	$x \downarrow y$	\Downarrow
$x \longleftrightarrow y$	\leftrightarrow	$x \longleftrightarrow y$	\longleftrightarrow	$x \updownarrow y$	\updownarrow
$x \Leftrightarrow y$	\Leftrightarrow	$x \Longleftrightarrow y$	\Longleftrightarrow	$x \updownarrow y$	\Updownarrow
$x \mapsto y$	\mapsto	$x \longmapsto y$	\longmapsto	$x \nearrow y$	\nearrow
$x \leftarrow y$	\hookleftarrow	$x \hookrightarrow y$	\hookrightarrow	$x \setminus y$	\searrow
$x \leftarrow y$	\leftharpoonup	$x \rightharpoonup y$	\rightharpoonup	$x \swarrow y$	\swarrow
$x \leftarrow y$	\leftharpoondown	$x \rightarrow y$	\rightharpoondown	$x \setminus y$	\nwarrow
$x \rightleftharpoons v$	\rightleftharpoons	$x \rightsquigarrow v$	\leadsto		

20 Miscellaneous Symbols

```
x:y
                                                                                 x \cdot y
x \dots y
           \ldots
                       x \cdots y
                                   \cdots
                                                              \vdots
                                                                                            \ddots
           \aleph
                                   \prime
                                                     x \forall y
                                                              \forall
                                                                                             \infty
x \aleph y
                        x/y
                                                                                 x \infty y
хИу
           \hbar
                        x \emptyset y
                                   \emptyset
                                                     x\exists y
                                                              \exists
                                                                                 x\Box y
                                                                                             \Box
                                                                                 x \Diamond y
           \imath
                       x\nabla y
                                   \nabla
                                                              \neg
                                                                                             \Diamond
x\pi y
                                                     x \neg y
x \rho y
           \jmath
                        x\sqrt{y}
                                   \surd
                                                     x \flat y
                                                              \flat
                                                                                 x \triangle y
                                                                                             \triangle
           \ell
                        x \top y
                                                              \natural
                                                                                             \clubsuit
x \ell y
                                   \top
                                                     x 
atural y
                                                                                 x - y
           \wp
                        x \perp y
                                   \bot
                                                     x \sharp y
                                                              \sharp
                                                                                 x \diamondsuit y
                                                                                             \diamondsuit
x \wp y
x\Re y
           \Re
                        x||y
                                   \backslash |
                                                     x \setminus y
                                                              \backslash
                                                                                 x \nabla y
                                                                                             \heartsuit
x\Im y
           \Im
                        x \angle y
                                   \angle
                                                     x \partial y
                                                              \partial
                                                                                 x \spadesuit y
                                                                                             \spadesuit
           \mho
x \nabla y
                                                     x \mid y
                                                                                 x!y
                        x.y
```

21 Variable-sized Operators

```
x \sum y
          \sum
                       x \cap y
                                 \bigcap
                                                 x \odot y
                                                           \bigodot
x \prod y
          \prod
                       x \bigcup y
                                 \bigcup
                                                 x \otimes y
                                                           \bigotimes
                                                           \bigoplus
x \coprod y
          \coprod
                       x \mid y
                                \bigsqcup
                                                 x \bigoplus y
                       x \bigvee y
x \int y
          \int
                                 \bigvee
                                                 x + y
                                                           \biguplus
x \oint y
          \oint
                       x \wedge y
                                 \bigwedge
```

22 Log-like Operators

```
x arccos y
                           x \csc y
                                                    x ker y
                                                                    x \lim \sup y
                                                                                   x \min y
                                                                                               x sinh y
              x \cos y
                                        x \exp y
                           x \deg y
x arcsin y
               x \cosh y
                                       x \gcd y
                                                    x \lg y
                                                                    x \ln y
                                                                                   x \Pr y
                                                                                                x \sup y
x arctan y
              x \cot y
                           x \det y
                                        x \text{ hom } y
                                                    x \lim y
                                                                    x \log y
                                                                                   x \sec y
                                                                                                x tan y
x arg y
               x \coth y
                           x \dim y
                                       x \inf y
                                                    x \lim \inf y
                                                                   x max y
                                                                                   x \sin y
                                                                                                x tanh y
```

23 Delimiters

```
x(y)
                     x)y
                                          x \uparrow y
                                                    \uparrow
                                                                         x \uparrow y
                                                                                  \Uparrow
x[y]
       [
                     x]y
                             ]
                                                    \downarrow
                                                                         x \downarrow y
                                                                                  \Downarrow
                                          x \downarrow y
x\{y
      \{
                     x}y
                           \}
                                          x \uparrow y
                                                    \updownarrow
                                                                        x \updownarrow y
                                                                                  \Updownarrow
x|y
       \lfloor
                     x \mid y
                             \rfloor
                                          x[y]
                                                    \lceil
                                                                                  \rceil
                                                                         x y
       \langle
                            \rangle
                                                                                  \backslash
x\langle y
                     x\rangle y
                                          x/y
                                                                         x \setminus y
x \mid y \mid
                     x||y \setminus |
```

24 Large Delimiters

```
\rmoustache \ \rmoustache \rmoustache \ \rmoustache \ \rmoustache \ \rmoustache \rmoustache \rmoustache \ \rmoustache \rmoustache \ \rmoustache \rmoustache \rm
```

25 Math Mode Accents

```
\hat{a} \rightarrow \hat{a} \rightarrow
```

26 Miscellaneous Constructions

```
abc
        \widetilde{abc}
                                 \widehat{abc}
                                         \widehat{abc}
                                 abć
àbc
        \overleftarrow{abc}
                                         \overrightarrow{abc}
\overline{abc}
        \overline{abc}
                                         \underline{abc}
                                 abc
abc
        \overbrace{abc}
                                         \underbrace{abc}
                                  abc
                                  \sqrt[n]{abc}
\sqrt{abc}
        \sqrt{abc}
                                         \sqrt[n]{abc}
f′
        f'
                                         \frac{abc}{xyz}
```

27 AMS Delimiters

```
x \vdash y \ullcorner x \vdash y \ullcorner x \perp y \llcorner x \perp y \llcorner
```

28 AMS Arrows

$x \dashrightarrow y$	\dashrightarrow	<i>x</i> ← <i>y</i>	\dashleftarrow
$x \not\sqsubseteq y$	\leftleftarrows	$x \leftrightarrows y$	\leftrightarrows
$x \not \equiv y$	\Lleftarrow	$x \leftarrow y$	\twoheadleftarrow
$x \leftarrow y$	\leftarrowtail	$x \notin y$	\looparrowleft
$x \leftrightharpoons y$	\leftrightharpoons	$x \cap y$	\curvearrowleft
$x \circlearrowleft y$	\circlearrowleft	$x \uparrow y$	\Lsh
$x \uparrow \uparrow y$	\upuparrows	$x \mid y$	\upharpoonleft
$x \downarrow y$	\downharpoonleft	$x \rightarrow y$	\multimap
$x \leftrightarrow y$	\leftrightsquigarrow	$x \rightrightarrows y$	\rightrightarrows
$x \rightleftarrows y$	\rightleftarrows	$x \rightrightarrows y$	\rightrightarrows
$x \rightleftarrows y$	\rightleftarrows	$x \rightarrow y$	\twoheadrightarrow
$x \mapsto y$	\rightarrowtail	$x \rightarrow y$	\looparrowright
$x \rightleftharpoons y$	\rightleftharpoons	$x \cap y$	\curvearrowright
$x \circlearrowleft y$	\circlearrowright	x ightharpoonup y	\Rsh
$x \downarrow \downarrow y$	\downdownarrows	$x \uparrow y$	\upharpoonright
$x \mid y$	\downharpoonright	$x \leadsto y$	\rightsquigarrow

29 AMS Negated Arrows

```
x \leftrightarrow y \nleftarrow x \nrightarrow y \nrightarrow x \nleftrightarrow y \nRightarrow x \nleftrightarrow y \nleftrightarrow x \nleftrightarrow y \nleftrightarrow
```

30 AMS Greek

```
x \in \mathcal{Y} \setminus \text{digamma} x \times y \setminus \text{varkappa}
```

31 AMS Hebrew

32 AMS Miscellaneous

```
x \mathbf{h} y
                                            \hbar
                                                                                                                                                       хħу
                                                                                                                                                                                               \hslash
                                          \vartriangle
                                                                                                                                                       x \nabla y \triangledown
x \triangle y
                                                                                                                                                                                             \lozenge
x \square y
                                           \square
                                                                                                                                                      x \Diamond y
                                            \circledS
                                                                                                                                                      x \angle y \setminus angle
x(S)y
                                            \measuredangle x \not\equiv y
x \not \perp y
                                                                                                                                                                                               \nexists
                                                                                                                                                                                               \Finv^u
х℧у
                                            \mho
                                                                                                                                                       x \exists y
x \ni y
                                           \backslash \mathsf{Game}^u
                                                                                                                                                      x k y
                                                                                                                                                                                                \begin{tabular}{ll} \beg
                                            \backprime
                                                                                                                                                                                               \varnothing
x \setminus y
                                                                                                                                                       x \emptyset y
                                          \blacktriangle x \vee y \blacktriangledown
x \blacktriangle y
                                                                                                                                                                                               \blacklozenge
x \blacksquare y
                                           \blacksquare
                                                                                                                                                      x \phi y
x \bigstar y
                                           \bigstar
                                                                                                                                                       x \not < y
                                                                                                                                                                                               \sphericalangle
                                            \complement
                                                                                                                                                                                               \eth
xCy
                                                                                                                                                       хðу
                                            \diagup^u
                                                                                                                                                                                              \diagdown^u
x/y
                                                                                                                                                      x \setminus y
```

33 AMS Binary Operators

```
x + y
                                           \smallsetminus
        \dotplus
                                  x \setminus y
x \cap y
         \Cap
                                  x \cup y
                                           \Cup
x \overline{\wedge} y
         \barwedge
                                  x \vee y
                                           \veebar
x \overline{\wedge} y
         \doublebarwedge
                                  x \boxminus y \setminus boxminus
                                  x \boxdot y \setminus boxdot
x \boxtimes y
         \boxtimes
        \boxplus
                                          \divideontimes
x \boxplus y
                                  x * y
x \ltimes y
        \ltimes
                                  x \rtimes y
                                          \rtimes
x \setminus y
        \leftthreetimes
                                  x \wedge y \rightthreetimes
x \downarrow y
        \curlywedge
                                           \curlyvee
                                  x \land y
x \ominus y
        \circleddash
                                  x \otimes y
                                           \circledast
x \odot y
         \circledcirc
                                            \centerdot
                                  x \cdot y
x \intercal y
        \intercal
```

^u Not defined in amssymb.sty, define using the \newsymbol command.

34 AMS Relations

```
\leqslant
x \leq y
x \lesssim y
          \lesssim
          \approxeq
x \approx y
x \ll y \setminus 1111
          \lesseqgtr
x \leq y
          \doteqdot
x \doteq y
          \fallingdotseq
x = y
          \backsimeq
x \subseteq y
          \Subset
x \subseteq y
          \preccurlyeq
x \leq y
x \lesssim y
          \precsim
          \vartriangleleft
x \triangleleft y
          \vDash
x \models y
          \smallsmile
x \smile y
          \bumpeq
x = y
x \ge y
          \geqq
          \eqslantgtr
x \geqslant y
x \gtrsim y
          \gtrapprox
x \gg y
          \ggg
x \geq y
          \gtreqless
x = y
          \eqcirc
x \triangleq y
          \triangleq
          \thickapprox
x \approx y
          \Supset
x \ni y
x \succcurlyeq y
          \succcurlyeq
          \succsim
x \gtrsim y
          \vartriangleright
x \triangleright y
          \Vdash
x \Vdash y
          \shortparallel
x \parallel y
          \pitchfork
x \pitchfork y
x \triangleleft y
          \blacktriangleleft
          \backepsilon
x \ni y
          \because
```

x :: y

35 AMS Negated Relations

```
\nless
                                      x \not \leq y
x \not< y
                                                 \nleq
x \not\leq y
          \nleqslant
                                      x \not \leq y
                                                 \nleqq
x \leq y
          \lneq
                                      x \nleq y \setminus lneqq
x \leq y
          \lvertneqq
                                      x \lesssim y
                                                \lnsim
          \lnapprox
x \lessapprox y
                                      x \not\prec y \setminus \mathsf{nprec}
x \not \leq y
          \npreceq
                                      x \not \supset y
                                                 \precnsim
x \not \geqslant y
          \precnapprox
                                      x \nsim y
                                                 \nsim
          \nshortmid
                                      x \nmid y
                                                 \nmid
x i y
x \not\vdash y
          \nvdash
                                      x \not\models y \quad \  \  \setminus nvDash
x \not = y
          \ntriangleleft
                                      x \not \triangleq y
                                                \ntrianglelefteq
x \not\subseteq y
                                      x \subsetneq y \subsetneq
          \nsubseteq
x \not\subseteq y
          \varsubsetneq
                                      x \subsetneq y
                                                 \subsetneqq
x \not\subseteq y
          \varsubsetneqq
                                      x \not > y
                                                \ngtr
x \not\geq y
          \ngeq
                                      x \not \geq y
                                                \ngeqslant
x \not \geq y
          \ngeqq
                                      x \geqslant y
                                                 \gneq
x \not \supseteq y
          \gneqq
                                      x \geqq y
                                                \gvertneqq
x \gtrsim y
          \gnsim
                                      x \geq y \setminus \text{gnapprox}
x \not\succ y
          \nsucc
                                      x \not\succeq y
                                                 \nsucceq
          nsucceqq
                                      x \gtrsim y
                                                 \succnsim
x \not\gtrsim y
          \succnapprox
                                      x \not\cong y \setminus \mathsf{ncong}
          \nshortparallel
                                                 \nparallel
хиу
                                      x \nmid y
x \not\vDash y
          \nvDash
                                      x \not\Vdash y
                                                \nVDash
x \not\triangleright y
          \ntriangleright
                                     x \not\trianglerighteq y
                                                \ntrianglerighteq
x \not\supseteq y
          \nsupseteq
                                      x \not\supseteq y
                                                 \nsupseteqq
          \supsetneq
                                                \varsupsetneq
x \supsetneq y
                                      x \not\supseteq y
x \supseteq y
          \supsetneqq
                                      x \not\supseteq y \varsupsetneqq
```